NOVEMBER 1960
VOL. 91, NO. 2

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

EDWARD H. OWEN, EDITOR
PAUL B. HOLDER, PUBLISHER
MacD. SINCLAIR, CONSULTING EDITOR
JOHN D. HEMMLER, ASSISTANT EDITOR
DEANNA MIHALICK, ASST. TO EDITOR
W. N. KUENEMAN, MIDWEST EDITOR
ANNE F. RACKEL, ADV. PRODUCTION

PUBLISHING OFFICES:
1276 W. THIRD ST., CLEVELAND 13, OHIO

WILLIAM L. OSBORN, EASTERN ADV. MGR.
310 EAST 49th ST., NEW YORK 17, N. Y.
PHONE: PLAZA 3-8350

MELBURN O. SIMMONS, MIDWEST ADV. MGR.
333 N. MICHIGAN AVE., CHICAGO 1, ILL.
PHONE: DEARBORN 2-6467

WILLIAM A. AYRES, WESTERN REP.
233 SANSOME ST., SAN FRANCISCO 4, CALIF.
PHONE: YUKON 6-2981

FRED FRISENFELDT, WESTERN REP.
1709 W. EIGHTH ST., LOS ANGELES 17, CALIF.
PHONE: HUBBARD 3-2777

PRINTING PRODUCTION is published monthly at 1276 West Third St., Cleveland 13, Ohio. © 1960 by Willsea Publishing Company.

Subscription rates in United States: One year, $5.00; two years, $8.00; three years, $10.00. Canada and U. S. Possessions: One year, $5.50; two years, $8.50; three years, $11.00. All other countries: One year, $10.00; two years, $16.00; three years, $20.00, in advance. Single current issues, 50c; back issues, 75c. December *Where To Buy* Printing Equipment and Supplies Reference Issue, $2.50 in United States; $3.50 outside United States. All foreign subscriptions payable in U. S. funds.

Member Publications BPA Business Audit

Accepted as Controlled Circulation Publication at Cleveland, Ohio.

PRINCIPAL ARTICLES

36 Greeting Card Printer Faces Complex Production
By GEORGE WILLIAMS

39 Registering Overlays With Special Makeready Stabber

40 How to Help Production Thru Work Saving Techniques
By JOHN BARRON

43 Electronic Copy Holding Gives Proofreading New Look

44 Litho's Impact Felt at Record NAPL Convention
By JOHN D. HEMMLER

48 Urge Photoengravers to Refine Control Techniques
By MacD. SINCLAIR

51 Inkmakers Work on Color Offset and Black Ruboff
By HERBERT SPRAKER

54 Factors That Control Pleasing Litho Color: Part III
By GYAN P. MADAN

REGULAR DEPARTMENTS

Letters to the Editors, 6
News Items, 9
Printing Industry Meetings, 26
Helpful Literature, 32
Editorial Page, 35
Idea File, 60
Patents for Printing Industry, 85
Advertisers' Index, 98
Graphic Views, 100

EQUIPMENT & SUPPLIES

Two Piece Lithographic Blanket, 76
Newspaper Splicing Adhesive, 76
Step and Repeat Machine, 77
Photoengravers Resist, 77
Dual Purpose Lineup Tables, 77
Anti-Offset Spray Unit, 77
Photographic Paper and Developer, 78
Sheetfed Gravure Press, 78
Casing-In Machine, 78
Gravure Cylinder Arc Lamp, 78
Label Scanning Machine, 79
Automatic Tying Machine, 79
Printing Plant Humidifier, 79
Composing Room Magnets, 79
Hand Tachometer, 80
Developer for High Contrast Film, 80
Improved Bookbinding Machines, 80
30½ In. Paper Cutter, 81
Halftone Screens, 81
Infrared Heater, 81
Blanket Hardner, 81
Punching and Binding Machine, 82
Multiple Line Photocomposition Machine, 82

THE GREETING CARD on this month's cover draws attention to greeting card printing which is featured in a page 36 story. We also took the opportunity to present a Thanksgiving motif in keeping with the season. There are, however, many other occasions in which the greeting card serves as an expression of sentiment. The demand for cards means billions of impressions for the plants engaged in this type of work and also calls for utilization of just about every available Graphic Arts process. We selected American Greetings Corp., which makes a business of special occasions, to tell how these complex creations are made.

LETTERS

TO THE EDITORS

Decline of Typefounding

Your article in the September issue on page 64 (*Big Change in Typography and Layout*) is very interesting.

I had the honor to serve as panelist at Sol Malkoff's typographic clinic during the International Craftsmen's convention in Atlanta. However, I would like to have seen more importance given to what was said on the decline of typefounding in America and why.

Art directors may not always be professionally educated in typography, but they do have a sense for quality of carefully worked out type forms. It is not only important to have good letter design, but also to give great care in the execution of typefounding. European foundries show careful detail work, and it is appreciated by the art directors.

If a collateral advertising piece shows finest quality, one can be sure it was achieved by using type throughout instead of photolettering or other mechanical lettering. For fast commercial advertising, mechanically modified photolettering has its shortlived use.

Erwin F. Raith, Type Director
Burke Dowling Adams, Inc.
Atlanta, Ga.

Credits Rotogravure For Hi-Fi Work

On page 52 of the October issue of PRINTING PRODUCTION there is an article on newspapers by Richard L. Pinkerton (*Transformation of the Weekly Newspaper*).

He talks about "the Hi-Fi color program of Young & Rubicam advertising agency can be looked at as a prophecy." He goes on to say that Young & Rubicam has cooperated with several offset printers in supplying preprinted color pages for big city dailies.

As I feel you would want to have the actual facts, I am submitting the following information. To my knowledge, in the last year and a half there have been very few pages printed in web offset. Practically all of them have been printed in web rotogravure on news stock. I am sure, if you will check Young & Rubicam and the other agencies who have run a great many of these pages during this period, you will find they used rotogravure and not web offset.

It is true, when it was introduced two years ago, that the concept of this advertising was web offset on heavy coated stock with full color on both sides of the sheet. Rotogravure has successfully printed on news stock with color on one side of the sheet, and with the daily newspaper printing the back-up.

If you wish any additional information on this subject, I would suggest that you contact Bruce Logan of Preprint & Publishing Service, Inc., 305 E. 46th St., New York City, who is promoting the media end of preprinted rolls.

Len S. Pinover, President
Intaglio Service Corp.
New York, N. Y.

Readers Express Interest

I am employed at Doubleday Brothers & Co. in Kalamazoo as a compositor right now. In January 1960, I will enter a training program for assistant production manager. That's one of the reasons why I have subscribed to your magazine. The other reason is that I think that every printer, no matter what he is—compositor, pressman or bookbinder—should read your magazine for the valuable articles it carries.

Paul Tameling
Kalamazoo, Michigan

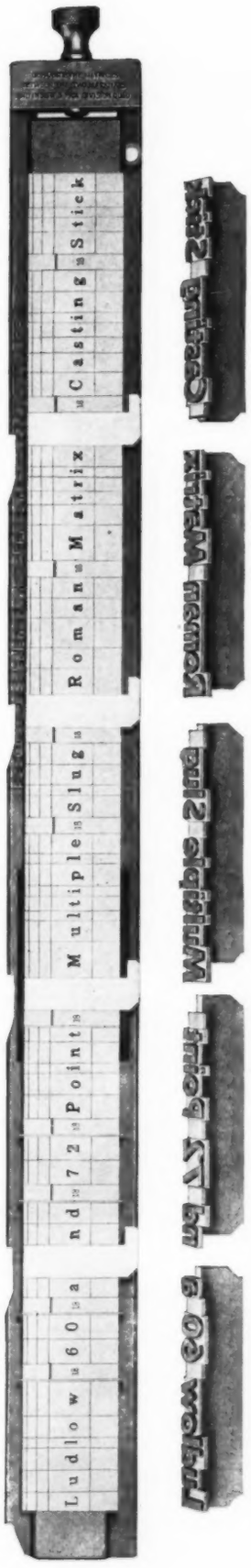
Keep up the good work on your magazine as it is one of the best. Reading it is a good way to keep abreast of printing—a fast moving trade.

Richard J. Fastner, Editor
Cloud Chaser Magazine
Saint Cloud, Minn.

we're proud as a peacock
to offer you our
ESCORT LEDGER
120 items in white and colors
ESCORT INDEX BRISTOL
40 items in colors matched to ESCORT LEDGER
And what a range of colors . . . White, Buff, Ecru, Salmon, Pink, Green-White, Blue. These fine quality record papers give excellent press performance and are ideal for machine or manual posting. Both are 50% new cotton fiber papers able to withstand unusually hard use.
"the quality which has earned its reputation"
L. L. BROWN
PAPER COMPANY
ADAMS, MASSACHUSETTS

For More Information Circle 24 on Reader Service Card

Long Lines LUDLOW-SET with a single justification



Showing a Ludlow stick with a line of matrices ready for casting the sluglines directly at side. Notice the ready spacing of the line, the division quads, and the "overhangs" which fit perfectly into adjoining recesses.

Here is another economy feature of Ludlow operation which not only cuts costs but improves the quality of the composition. Long lines up to 112½ picas are readily assembled and spaced out in one stick, with only a single justification, even though the resultant line is cast in several sections.

The line of Ludlow matrices is assembled in the long stick, and the entire line is then spaced out as usual without regard to the length of the individual slug. Division quads are then inserted at the marks on the stick which indicate slug lengths. All that is then necessary is to tighten the stick knob before making a cast.

When the slugline is cast, it is delivered in unit slug sections. If a character happens to overhang the end of one slug, it fits into a recess automatically cast on the next slug to support that overhang.

Ludlow flexibility enables the compositor to choose the right stick for the length of line required—a short stick for a short line and a longer stick for a longer line—and all with a single justification. No unnecessary sawing or fitting with Ludlow. Sticks in lengths of 22½, 45, 67½, 90, and 112½ picas are available—or other length sticks to fit your needs.

LUDLOW TYPOGRAPH COMPANY

2032 Clybourn Avenue · · · Chicago 14, Illinois

Set in members of the Ludlow Radiant family

For More Information Circle 107 on Reader Service Card

DAGENS NYHETER

Contrôle les 7 points de repère – et passe une commande pour Colormatics*

Checks 7 facts – and orders Colormatics*

Prueft 7 Tatsachen – und bestellt Colormatics*

Chez *Dagens Nyheter*, le plus prestigieux quotidien matinal de la Scandinavie, les gens de l'administration de même que le personnel clef, ont effectué une comparaison méticuleuse...après quoi ils ont examiné et encore vérifié les *7 points* de repère, tout cela suivi d'une commande pour les unités de presse ROP Colormatic.

Ecrivez ce-jour même pour nous demander la remise des *7 points* de repère concernant Colormatic, la nouvelle presse qui a provoqué une révolution dans l'industrie.

Nous croyons très sincèrement que vous serez du même avis, à savoir que Colormatic vous assurera des bénéfices augmentés...et, bien sûr, des caractéristiqúes de fonctionnement plus parfaites...*aujourd'hui comme dans les années à venir.* Ecrivez à Ampress, S.A., Place Du Molard, Génève, La Suisse.

At *Dagens Nyheter*, Scandinavia's leading morning paper, management and key mechanical personnel made the painstaking comparisons...then they checked and rechecked the *7 facts* and ordered Colormatic ROP press units.

Write today for those *7 facts* about the Colormatic—the new press unit that has revolutionized the industry.

We sincerely believe you'll agree that the Colormatic will assure you greater profits...and superior operating characteristics...*now and in the decades to come.* Write to Ampress, S.A., Place Du Molard, Geneva, Switzerland.

Bei *Dagens Nyheter*, dem fuehrenden Morgenblatt Skandinaviens zog die Geschaeftsleitung und das in den mechanischen Schluesselstellungen beschaeftigte Personal sorgfaeltige Vergleiche...darnach prueften sie und ueberprueften nochmals die *7 Tatsachen* und gaben Colormatic ROP Druckeinheiten in Auftrag.

Schreiben Sie heute, um die *7 Tatsachen* betreffs Colormatic – der neuen Druckeinheit, welche die Industrie revolutioniert hat, zu erhalten.

Wir sind der festen Ueberzeugung, dass Sie uebereinstimmen werden, dass die Colormatic Ihnen groessere Gewinne bringen wird...und ueberlegene Betriebseigenschaften...*jetzt und in den kommenden Jahrzehnten.* Schreiben Sie an Ampress, S.A., Place Du Molard, Genf, Schweiz.

Manufacturer of Colormatic Units in Europe

AMPRESS, S.A.

AFFILIATE OF R. HOE & CO., INC.

*Trademark

NEWS ITEMS

Tornberg Relinquishes Wood Post — I. Tornberg has relinquished his duties as sales manager of Wood Newspaper Machinery Corp. However, he will continue to serve the company on a special assignment basis. Well-known throughout the Graphic Arts, Tornberg has been associated with Wood since 1919 and has been active in the newspaper printing press industry since 1907. Traveling in the United States and abroad has been one of Tornberg's major interests. He and his wife have visited every state in the U. S. and most of the major countries of the world.

TORNBERG

HOMMEL

Hommel Assumes Presidency of New Firm—Theodore Hommel has resigned as general sales manager of Lanston Industries and as vice president of Unitronics, Inc., Div. of Lanston, to become president of Theo. Hommel, Inc. Located in Berwyn, Pa., the new corporation specializes in the development of control devices and processes for the Graphic Arts. A co-founder of Unitronics, Hommel joined Lanston in 1959 when Unitronics was purchased from Universal Match Corp.

Chemco Names Assistant Midwest Manager—Victor Chapiesky has been appointed assistant sales manager in the Midwest by Chemco Photoproducts Co., Inc. Chapiesky has been associated with the company for 12 years and will make his headquarters in Chicago.

CHAPIESKY

WEBER

Weber Appointed Sta-Hi Vice President—Donald V. Weber has been appointed vice president and director of Sta-Hi Corp. Formerly production manager of the Houston *Chronicle*, Weber has also been associated with the New York City plant of the *Wall Street Journal* and with the Jamestown (N.Y.) *Post-Journal*. For the last several years, he has been a member of the ANPA-RI mechanical committee.

To Direct Colormatic Sales in Europe—Nils E. Engstrom has been appointed European sales engineer for Ampress S. A., Sub. of R. Hoe & Co., Inc. Engstrom, who is a native of Sweden, has represented several European manufacturers. He will direct sales of Hoe's Colormatic press line in Europe.

Composing Room Superintendent Retires—Deo A. Padgett has announced his retirement after serving for 22 years as composing room superintendent of the Cleveland *Plain Dealer*. Padgett's career in printing began in 1908 when he worked as an apprentice at the Eagle-Press, a print shop in Wichita, Kan. Since then, he has held supervisory posts with various newspapers throughout the country. Well-known in the industry, Padgett is a past president of the Great Lakes Mechanical Conference. Succeeding Padgett at the *Plain Dealer* will be John J. Hollis, who has worked in the newspaper's composing room for 37 years.

Harris Creates Personnel Post—Howard M. Dirks has been elected to the newly created position of vice president, personnel, Harris-Intertype Corp. Formerly, Dirks was vice president, personnel, Carrier Corporation, Syracuse, N. Y.

DIRKS

NASE

To Represent Du Pont in Cleveland—Robert E. Nase has been named Cleveland area sales representative for the Photo Products Dept., E. I. du Pont de Nemours & Co. Formerly, he was technical representative for Du Pont in Kansas City, Mo.

Chicago Newspapers Name Production Heads—Three appointments have been announced by the Newspaper Division, Field Enterprises, Inc., publisher of the Chicago *Sun-Times* and Chicago *Daily News*. William J. Taney has been named production manager of the division; Leo F. Vogler, mechanical superintendent, and Anthony T. Morang, assistant mechanical superintendent. Formerly, Taney was production manager and Morang was as-

7 points de repère...

Nous vous invitons à demandez par écrit la remise à vous de ces points de repère. Nous croyons très sincèrement que vous serez de notre avis, à savoir que les unités de presse Colormatic* vous apporterons des bénéfices augmentés...aujourd'hui commes dans les décades à venir.

7 facts...

We invite you to write for these facts. We *sincerely* believe you'll be convinced that the revolutionary Colormatic* press units will assure you greater profits...now and in the decades to come.

7 Tatsachen...

Wir fordern Sie auf, diese Tatsachen bei uns einzuholen. Wir sind der *aufrichtigen* Ansicht, dass Sie ueberzeugt sein werden, dass die umwaelzenden Colormatic* Druckeinheiten Ihnen groessere Gewinne sichern werden...jetzt und in den kommenden Jahrzehnten.

Manufacturer of
Colormatic Units in Europe

AMPRESS, S.A.

AFFILIATE OF R. HOE & CO., INC.

*Trademark

sociated with the department of production administration of the *Sun-Times*. Vogler had been production manager of the *Daily News*. According to Hy Shannon, vice president, the appointments were made to facilitate future production when both newspapers will be printed in the same plant—sometime in 1961.

German Calligrapher Joins Carnegie Tech—Hermann Zapf, German-born calligrapher, type designer and book designer, has been named an A. W. Mellon Distinguished Visiting Professor at Carnegie Institute of Technology, Pittsburgh. During his stay at Carnegie, Zapf will conduct a six week seminar on book design and will present an exhibition of his work. Among the type faces designed by Zapf are: Palatino, Michelangelo, Sistina and Melior.

To Head Tribune's Color Engraving—Delos Racine has been appointed superintendent of the color engraving department, Chicago *Tribune*. He succeeds Pat Bresnahan, who has retired after serving in that position since 1936. Named to assume Racine's former position of night foreman is Pat Ryan, who joined the newspaper's color engraving department in 1936.

Hoe Executive Changes—Joseph L. Auer, president, R. Hoe & Co., Inc., has announced election of Richard E. Lewis as

LEWIS

HENDERSON

vice president-sales manager. Lewis has resigned his position as director of the Mechanical and Service Div., American Newspaper Publishers Assn. Research Institute. He will report to William W. Henderson, vice president-press sales, who will also assume administration of Hoe's Press Engineering Div., which is headed by Burton C. Polglase, vice president and chief engineer. A graduate of Ohio State University with a B.S. degree in mechanical engineering, Lewis became director of the ANPA-RI Mechanical and Service Div. last year.

Harris-Seybold Official Drowns—John M. Morehouse, 56, head of used machinery sales, Harris-Seybold Co., Div. of Harris-Intertype Corp., was drowned in a boating accident, Oct. 8. Mr. Morehouse was thrown from a cabin cruiser into Lake Erie when a wave hit the cruiser broadside. He had been associated with Harris since 1949 and had served as Fifth District deputy representative of the International Craftsmen's Assn.

Rand McNally Acquires Illinois Firm—The consolidation of C. O. Owen Co., Maywood, Ill., with Rand McNally & Co., Skokie, Ill., has been announced. John H. Goessele, president, and Harry O. Owen, Jr., vice president, of the book printing and book binding firm, will join the Rand McNally staff.

Miehle Treasurer Dies—George Schultz, treasurer of Miehle Company, Div. of Miehle-Goss-Dexter, Inc., died Sept. 20, at the age of 65. Associated with Miehle for 42 years, Mr. Schultz served the company as assistant treasurer and assistant secretary before assuming the post of treasurer in 1943.

Syracuse Names New Graphic Arts Head—Edmund C. Arnold, former director of trade relations, Mergenthaler Linotype Co., has been named professor and head of the Graphic Arts Dept., Syracuse University, Syracuse, N. Y. Arnold succeeds Prof. Laurance B. Siegfried, who has retired from his administrative duties but will continue to teach advanced typography at the university. In addition to his new position, Arnold will serve as a

Walter A. Metz, foreman of the Patriot-Evening News Engraving Department, says, "We are using the Imperial Vitaplate-VitasolV powderless etching team for over 50,000 line and halftone engravings annually. Our line etchings run from a depth of .036 to .042, eliminating all routing."

Newspapers all over the country are obtaining amazing results with this team—how about you? Investigate Imperial's Photoengraving Engineering Service for data on both equipment and supplies without obligation.

IMPERIAL ZINCS

- **VITAPLATE with VITASOLV** —*the original one-bite additive*
- **DURAPLATE**
- **REGULAR**

Imperial

For More Information Circle No. 94 on Reader Service Card

WOOD FLONG starts its second half century with this new *first* added to its long list of contributions to the newspaper industry.

Super Flong, the one-piece, no-pack mat can be used for cold molding R. O. P. color.

Super Flongs eliminate progressive shrinkage in the casting box . . . produce a *uniformly level printing surface* for better tonal quality and cleaner highlights . . . make *longer wearing plates,* which save re-plating.

Now used by many of the world's leading R. O. P. color newspapers, Super Flongs eliminate baking. All that is necessary is to mold, scorch and cast. You save as much as 15 minutes with every mat . . . and register is absolute.

Super Flongs save time and improve your color work.

ONE-PIECE SUPER FLONG NO-PACK MAT
A NEW ERA IN STEREOTYPING

WOOD FLONG CORPORATION

HOOSICK FALLS, NEW YORK

NEW YORK OFFICE: 551 FIFTH AVE.; PHONE: MU 7-2950

SERVING THE GRAPHIC ARTS INDUSTRY EXCLUSIVELY SINCE 1911

For More Information Circle 189 on Reader Service Card

consultant for Mergenthaler and will continue to conduct his well-known one day clinics on newspaper makeup.

Named Vice President of Didde-Glaser—Harry Higgins has been promoted to the post of vice president-sales of Didde-Glaser, Inc. In addition, Higgins will retain the position of director of sales and service. He has been associated with the firm since its founding, six years ago.

Ink Company Completes Reorganization—The reorganization of William C. Herrick Ink Co., Inc., has been announced. New officers of the firm are: Thomas F. Long, president; Charles H. Merbitz, vice president, and E. K. Abbott, secretary-treasurer. The reorganization includes a new newspaper ink delivery fleet and plans for bulk distribution of inks.

To Head Linotype Promotion in West—Ray G. Burgoon has been appointed manager of sales promotion in the West by Mergenthaler Linotype Co. In his new position, Burgoon is to develop a West Coast adjunct to Linotype's production planning department in Brooklyn. Formerly, the manager of the company's Los Angeles office, Burgoon has 35 years of experience in the Graphic Arts. Joseph W. Agee has succeeded Burgoon as agency manager in Los Angeles.

HIGGINS

CARLIN

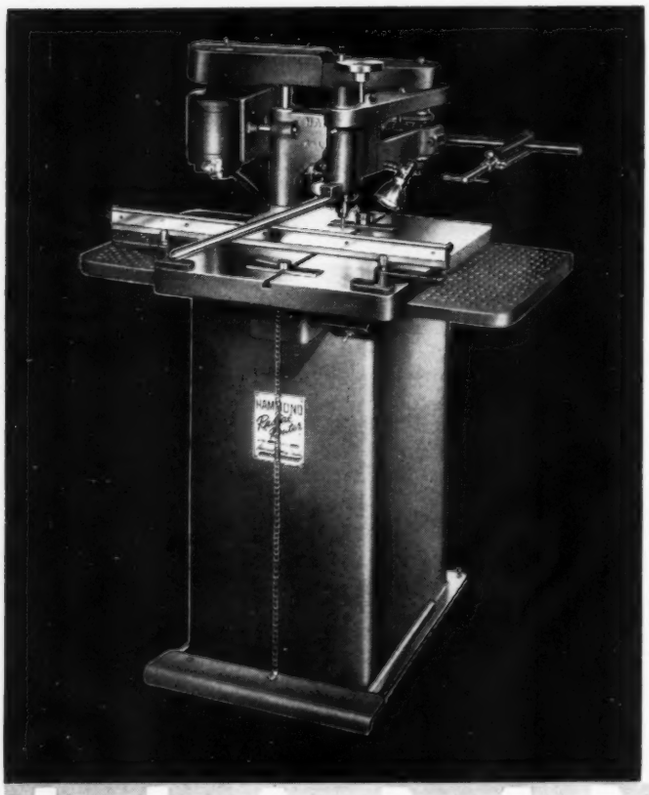
Appointed Western Sales Manager—James K. Carlin has been promoted to the position of Western sales manager of Printing Machinery Co. Previously, he represented the firm in the Cincinnati area. Carlin is an active member of the International Craftsmen's Assn., having just completed a two year term as deputy district representative.

Web Controls Corp. Names Engineer—Harry F. Woelk has been appointed application engineer for Web Controls Corp. He will service web machinery and filament machinery accounts.

Wm. Gegenheimer Co. Changes Name—Baldwin-Gegenheimer Corp. is the new name adopted by William Gegenheimer Co., Inc. According to a company official, the name was changed because the company name Gegenheimer and the trade name Baldwin are often used interchangeably. The company manufactures Baldwin ink fountain agitators, press washers, water levels and water stops.

Creates Business Forms Marketing Organization—A national marketing organization has been created for business forms manufacturers that are subsidiaries of Allied Paper Corp. Also announced by Allied Paper is the purchase of Charles E. Brown Printing Co., Kansas City, Mo., the fifth rotary business forms manufacturer to become a subsidiary of Allied Paper. The new marketing organization is to be known as Allied-Egry Business Systems. Companies included in the new Allied-Egry group are: American Register Co., Boston; Carmax Corporation, Houston; Egry Register Co., Dayton, O.; Stephen Greene Co., Philadelphia, and Charles E. Brown Printing Co. Director and vice president of Allied-Egry will be Jack Kennedy, former vice president of Egry Register Co.

Sta-Hi to Represent Wiretyer in West—Sta-Hi Corp. has been appointed to represent Wiretyer Corporation in the West Coast Territory. The announcement was made by Vernon R. Spitaleri, executive vice president, Sta-Hi, and Harold Colombo, sales manager, Wiretyer. Sta-Hi



Hammond Radial Router

The Hammond Radial Router is the best router at a medium price. Only the Hammond R-4 offers the belt driven ball bearing spindle with a ½ HP constant speed motor. Full newspaper page capacity, routes both shell and type-high plates plus mortising shell plates. Priced completely equipped with motor, clamps, lights, grilled shelves and router bit grinder. The ideal stereo router for non-metropolitan newspapers and printers.

HAMMOND

HAMMOND MACHINERY BUILDERS • KALAMAZOO, MICHIGAN

For More Information Circle No. 223 on Reader Service Card

Cut Or Trim The Best Way! Flat Cutting...Trimming Lifts...In-Line Trimming...MGD Has The Right Machine

Only MGD offers all four types of cutting and trimming equipment...*completely unbiased*, with no "ax to grind."

LAWSON PACEMAKER CUTTERS—for *flat cutting* accuracy and speed...six models from 40" to 69"... easy operation, maximum safety and minimum maintenance...optional Electronic Spacer and Flexible Contour Clamp. Low cost *Regent Cutters*, also.

DEXTER BRACKETT TRIMMER—for *cutting apart* multiple-up labels, booklets, pads, post cards, etc.... work up to 25" wide moves *straight through* the machine to a built-in conveyor for packing and shipping.

McCAIN 3-KNIFE TRIMMER—couples to stitcher, automatically *trims single books* accurately on all three sides...speeds up to 9000 per hour on sizes to 12 x 19" ...optional 4th and 5th knives for maximum output on two-up work. *39" Front Cut Trimmer, also.*

LAWSON 3-KNIFE RAPID TRIMMER—*trims lifts of books*, magazines or pamphlets on all three sides with exacting precision...lifts to 4¾" high...speeds to 25 lifts per minute...handles all types of bound work, one or two-up...sizes to 11¾ x 16⅞" (trimmed).

Be sure to check with MGD first about all of your cutting and trimming equipment needs.

MIEHLE-GOSS-DEXTER, INC.
Chicago 8, Illinois

M G D

For More Information Circle 234 on Reader Service Card

will handle Wiretyer's complete line of materials handling equipment for the newspaper field—stereotype plate handling, mailroom and distribution equipment. The territory involved consists of California, Washington, Oregon, Arizona, Nevada, Utah, Idaho and British Columbia, Can.

Bauer Alphabets Moves—Plans to move to larger quarters have been announced by Bauer Alphabets, Inc. The new address will be 305 E. 45th St., New York 17.

Tingue, Brown Sales Manager Dies — William M. Brennan, 44, sales manager, Printing Division, Tingue, Brown & Co., died on Aug. 20 at his home in Elmwood Park, Ill. Mr. Brennan had been associated with Tingue, Brown for 23 years.

Represents Mergenthaler Press Division—William J. Morganson has been appointed sales representative for Mergenthaler Press Div., Mergenthaler Linotype Co. Previously, Morganson was sales manager for a typographic firm in Indianapolis. His new territory is comprised of Ohio, Indiana, Kentucky and Tennessee.

Government Printing Executive Leaves Post—Dr. Roy B. Eastin, executive officer, Government Printing Office, has accepted a professorship of business administration at George Washington University, Washington, D. C. In 1959, Eastin was a recipient of the Distinguished Service Award, the highest honor given by the Government Printing Office.

MORGANSON

DEMES

To Represent Ideal Roller in Detroit—Nick R. Demes has been appointed sales representative in the Detroit area by Ideal Roller & Mfg. Co., Inc. He succeeds George Boyne.

Comac Engineering Names Distributor—Pneuma-Flo Systems, Inc., has been named national distributor for Comac Engineering, Inc., according to Odd Hultgreen, president of Comac. Radiant heaters, ovens and air drying systems for use with all processes are manufactured by Comac.

PIA Secretary Receives Citizen's Award—Frank F. Pfeiffer, president of Reynolds & Reynolds Co., Dayton, O., and secretary of the Printing Industry of America, has received the Citizen's Legion of Honor award from the Dayton President's Club. A participant in many Graphic Arts activities, Pfeiffer served as an organizer and first president of the Research and Engineering Council.

Imperial New England Representative—Harvey Brown has been appointed New England sales representative of Imperial Type Metal Co. According to Charles Olton, New England manager, Brown will handle type metals and photo products for the company. Formerly, Brown was associated with Hunt-Brown, Inc.

BROWN

KEEFE

Dewey and Almy Creates Printing Dept.—James T. Keefe, Jr., has been appointed sales manager of the newly created General Printing Products Dept., Dewey and Almy Chemical Div., W. R. Grace & Co. Keefe is in charge of marketing the new Polyfibron offset press blanket; he had been in charge of the development of the blanket. In addition, the following appointments of sales representative were made: Richard H. Daily, in the New

MORE Robertson® CAMERAS Are In Use TODAY than any other make!

reasons?

1. More real value for the money
2. Longer service life . . . less maintenance
3. Faster, easier operation
4. Most advanced design
5. Higher assured trade-in value
6. Highest quality product
7. . . . THEY'RE BUILT AND BACKED BY THE LARGEST MANUFACTURER OF PHOTO-MECHANICAL EQUIPMENT IN THE COUNTRY . . . THEREFORE PUT YOUR TRUST IN A PROVEN PRODUCT

COMET CAMERA

24", 31" and 36" film size. Screw or Cable Drive

There is a Robertson Camera for every photo-mechanical requirement . . . in the most economical size and model to match your needs. Ask your Robertson Camera Dealer for full details.

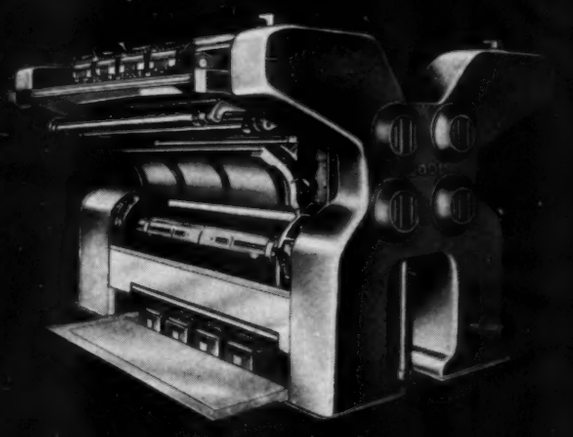
ROBERTSON PHOTO-MECHANIX, INC.
7440 LAWRENCE AVENUE • CHICAGO 31, ILLINOIS

Robertson PHOTO-MECHANIX®

For More Information Circle No. 155 on Reader Service Card

THE WOOD METROPOLITAN 4-COLOR UNIT

noted for utmost flexibility



CHOICE OF LEADING PUBLISHERS. We List Some Typical Newspaper & Periodical Installations

BUFFALO EVENING NEWS
Buffalo, N. Y.

CITY NEWS PRINTING CORPORATION
Stamford, Conn.

DISPATCH PIONEER-PRESS
St. Paul, Minn.

POST-DISPATCH
St. Louis, Mo.

RODGERS & McDONALD PUBLISHERS, INC.
Los Angeles, Cal.

STAR-NEWS
Indianapolis, Ind.

ROTO COLOR INC.
Division of Pioneer Publishing Co.
St. Charles, Ill.

AXEL SPRINGER & SOHN
Hamburg, Germany

and many others

FEATURES THAT DISTINGUISH THE WOOD 4-COLOR UNIT

Adaptable for use with standard Black & White units.

Couples individually reversible, as desired.

Individual color fountains removable for color changes and fast, clean wash-up.

All four plate cylinders driven by a single gear.

Ink control from eye-level push buttons on side of press.

Several optional web arrangements available to print black and 3-colors, black only or 4-colors. A fifth couple can be added to permit printing black one side, 4-colors on other.

If room permits, a second Reel, Tension and Autopaster can be added and run as the equivalent to two standard black units to produce a 16-page newspaper. If a fifth couple is added, the product can carry 4 pages of spot color.

The WOOD 4-Color Unit is designed and built to meet every demand made of today's high speed press units for utmost flexibility in color printing.

If you print ROP, spot, supplements or advertising in one to four colors, the WOOD Metropolitan 4-Color Unit can be depended upon to produce fine quality printing, **economically.** We invite inquiries on an installation for your specific needs.

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • Executive & Sales Office: 501 Fifth Avenue, New York 17, N.Y.

For More Information Circle 237 on Reader Service Card

England area; Robert K. Miller, in the New York, New Jersey and Pennsylvania area; and John H. van Keulen, in the Midwest area.

Machine Tool Coordinator for Goss—Frank Chudoba has been appointed machine tool coordinator, Goss Company, Miehle-Goss-Dexter, Inc. A graduate of General Motors Institute of Technology, Flint, Mich., Chudoba has been associated with the Goss Rockford plant for the last six years.

Champion Export Head Retires—Dana Pratt, director of export sales, Champion Paper and Fibre Co., has announced his retirement. He also served as president of Champion Paper Export Corp. and of Champion Paper Corp., S. A. Pratt was associated with the company for 23 years.

Du Pont to Move New York Office—The New York district sales office and warehouse of the Photo Products Dept., E. I. du Pont de Nemours & Co., will be transferred to Secaucus, N. J., in 1961. According to Fenner G. Headley, New York district manager, the move is being made to expedite deliveries and to increase warehouse space.

Appointed to Goss Engineering Post—William S. Fleck has been appointed assistant engineering administrator of Goss Company, Div. of Miehle-Goss-Dexter, Inc. During his 14 years with Goss, Fleck has held various positions.

Represents Wiretyer in Midwest—Howard James has been appointed district sales representative for Wiretyer Corporation in the Midwest. His headquarters is located at 2707 W. 43rd St., Kansas City, Kan.

JAMES

SMITH

Wood Flong Names Representative—Jason R. Smith has been named Southeastern sales representative for Wood Flong Corp. His territory will include: Mississippi, Alabama, N. Carolina, S. Carolina, Virginia, Georgia and Florida. Smith succeeds William A. Wetherell, who is retiring after representing the company for 33 years.

Nolan Ad Manager Dies—Robert D. Berry, 47, advertising manager, Nolan Corporation, died in Rome, N. Y., Sept. 10, after a brief illness. He had served Nolan as advertising manager for the last 13 years.

Hammermill Purchases Envelope Company—An agreement has been reached for the purchase of Union Envelope Co., Richmond, Va., by Hammermill Paper Co. The annual sales of Union amount to $5 million. No change is to be made in the personnel or operating policies of the envelope company.

Sun Names Technical Director—T. A. Langstroth has been named technical director of the Chemicals Group, Sun Chemical Corp. Langstroth formerly served as pigment and flushed color research director for Hilton Davis Chemical Co. and has had wide experience in the field of printing inks.

To Distribute Eastern Fine Paper—Franklin Paper Co., Los Angeles, has been appointed distributor of Eastern fine business papers in Southern California by Eastern Fine Paper and Pulp Div., Standard Packaging Corp. Located at 2121 San Fernando Rd., Franklin is headed by Timothy F. O'Keefe.

To Sell Curastat Static Eliminator—Addressograph-Multigraph Corp. has been named exclusive distributor of the Curastat static eliminator. The appointment was announced by Herbert Products, Inc., manufacturers of the equipment which is designed for use on Addressograph-Multigraph duplicators and reproduction equipment.

SAVE TIME—SPEED UP TYPE HANDLING with PMC STERLING LOCKING MAGNETS

PMC Sterling Locking Magnets hold firmly against type—and cuts—on any iron or steel surface, such as a galley, type bed or imposing table. A quick, easy-to-use locking means, they save time-consuming string tying right down the line in make-up, proofing and storage.

• Bigger-Stronger

PMC Sterling Locking Magnets are bigger (2⅛" x ½" x ¾") than similar magnets and much stronger. They will hold type so tightly in a galley that it can be tipped on edge.

• Time-Tested

These same magnets long have been extensively used in many European printing plants.

• Versatile

In addition to type locking applications, printers find all sorts of uses for PMC Magnets such as... holding copy at the machine... as guide for ejected slugs... for proofing single slugs or small cuts without a chase... for holding oil sheets for register... and many others.

"The printers' tools of unlimited use"

THE PRINTING MACHINERY COMPANY

436 Commercial Square, Cincinnati 2, Ohio

PMC Magnets are $12.50 in lots of 10, or $1.00 each for 50 or more.

Please send me_____PMC Magnets.

☐ Bill my regular account

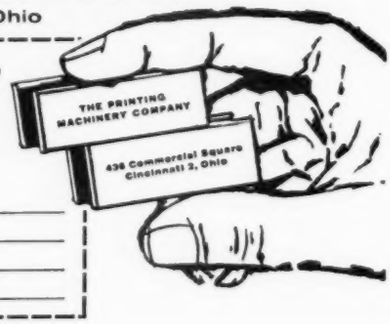
☐ Send COD

Name_____

Company_____

Address_____

City_____ Zone____ State_____

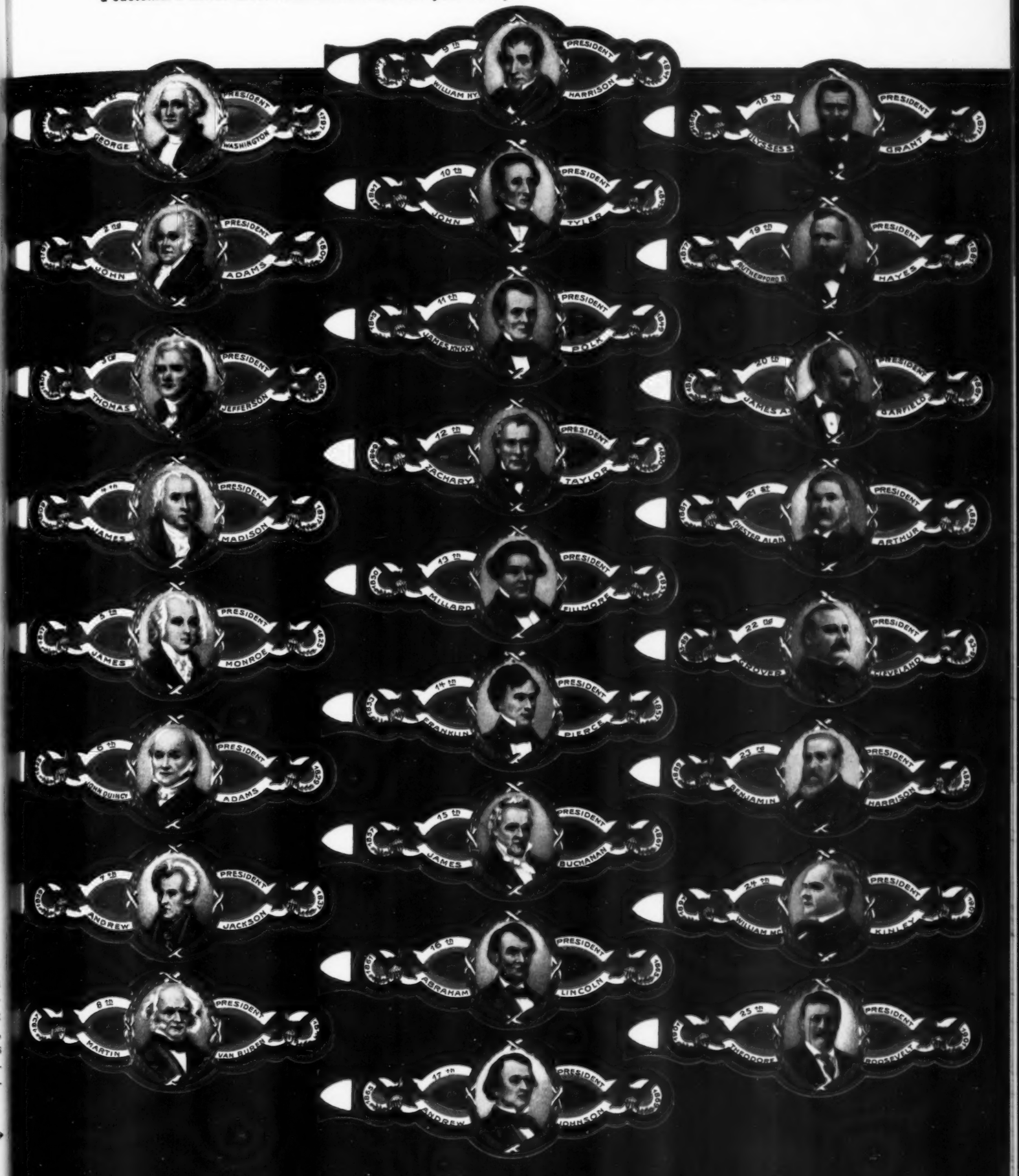


For More Information Circle No. 147 on Reader Service Card

For More Information Circle 83 on Reader Service Card→

CAST YOUR VOTE FOR HAMMERMILL OFFSET

Election year or any year, Hammermill Offset runs on a three-plank platform: **1** this sparkling white sheet reflects ink colors with sales-making realism **2** its Neutracel® pulp makes a level, fast-running surface **3** its measurably greater bulk feels important in a customer's hand. Elect Hammermill Offset for your next job.


1st PRESIDENT GEORGE WASHINGTON
2nd PRESIDENT JOHN ADAMS
3rd PRESIDENT THOMAS JEFFERSON
4th PRESIDENT JAMES MADISON
5th PRESIDENT JAMES MONROE
6th PRESIDENT JOHN QUINCY ADAMS
7th PRESIDENT ANDREW JACKSON
8th PRESIDENT MARTIN VAN BUREN
9th PRESIDENT WILLIAM HENRY HARRISON
10th PRESIDENT JOHN TYLER
11th PRESIDENT JAMES KNOX POLK
12th PRESIDENT ZACHARY TAYLOR
13th PRESIDENT MILLARD FILLMORE
14th PRESIDENT FRANKLIN PIERCE
15th PRESIDENT JAMES BUCHANAN
16th PRESIDENT ABRAHAM LINCOLN
17th PRESIDENT ANDREW JOHNSON
18th PRESIDENT ULYSSES GRANT
19th PRESIDENT RUTHERFORD B. HAYES
20th PRESIDENT JAMES A. GARFIELD
21st PRESIDENT CHESTER ALAN ARTHUR
22nd PRESIDENT GROVER CLEVELAND
23rd PRESIDENT BENJAMIN HARRISON
24th PRESIDENT WILLIAM MCKINLEY
25th PRESIDENT THEODORE ROOSEVELT

COLOR OR BLACK AND WHITE,

A VOTE FOR HAMMERMILL OFFSET IS A VOTE FOR A SHARPER, CLEANER JOB

Many printers re-elect Hammermill Offset, job after job. You can print half-tones, line drawings and type profitably on this bright, level sheet.

The presidential set of cigar bands on the front of this insert was printed in 1907, and is owned by Mr. Joseph J. Hruby, Jr., of Cleveland.

These small masterpieces of turn-of-the-century lithography are shown here on luminous Pearl finish, one of the eight distinctive Hammermill Offset finishes. Pearl recaptures the detail in the lithographer's portraits —and the tiny imperfections, too. This insert was printed by Offset on substance 70, Pearl finish on a 42 x 58 single-color press. Sheet size 40 x 46. Speed 3000 per hour. Colors printed yellow, blue, red, black.

HAMMERMILL OFFSET... FOR PRINTING AT ITS LEVEL BEST

easy-to-use TENAPAK

replaces dead metal... ACCURATELY

With TENAPAK, routed areas of engravings, even of uneven depths, are filled uniformly to exact printing height. In four minutes under heat and pressure (300°F. at 200 p.s.i.), TENAPAK replaces the dead metal and supports and protects the duplicate printing surface throughout the electrotyping process and hand finishing operation. The screen texture of TENAPAK'S aluminum surface clearly identifies the dead metal areas on the electrotype and simplifies final routing.

TENAPAKED originals can be cleaned with any standard solvents or commercial type cleaners. To remove TENAPAK, reheat original to 300°F. and pry off.

TENAPAK is available in sheets and various size buttons and strips to reduce patching time. To eliminate building-up and to assure maximum accuracy, TENAPAK is supplied in precise, color-keyed thicknesses for different depths. For a sample sheet and detailed instructions, write to:

Tenak

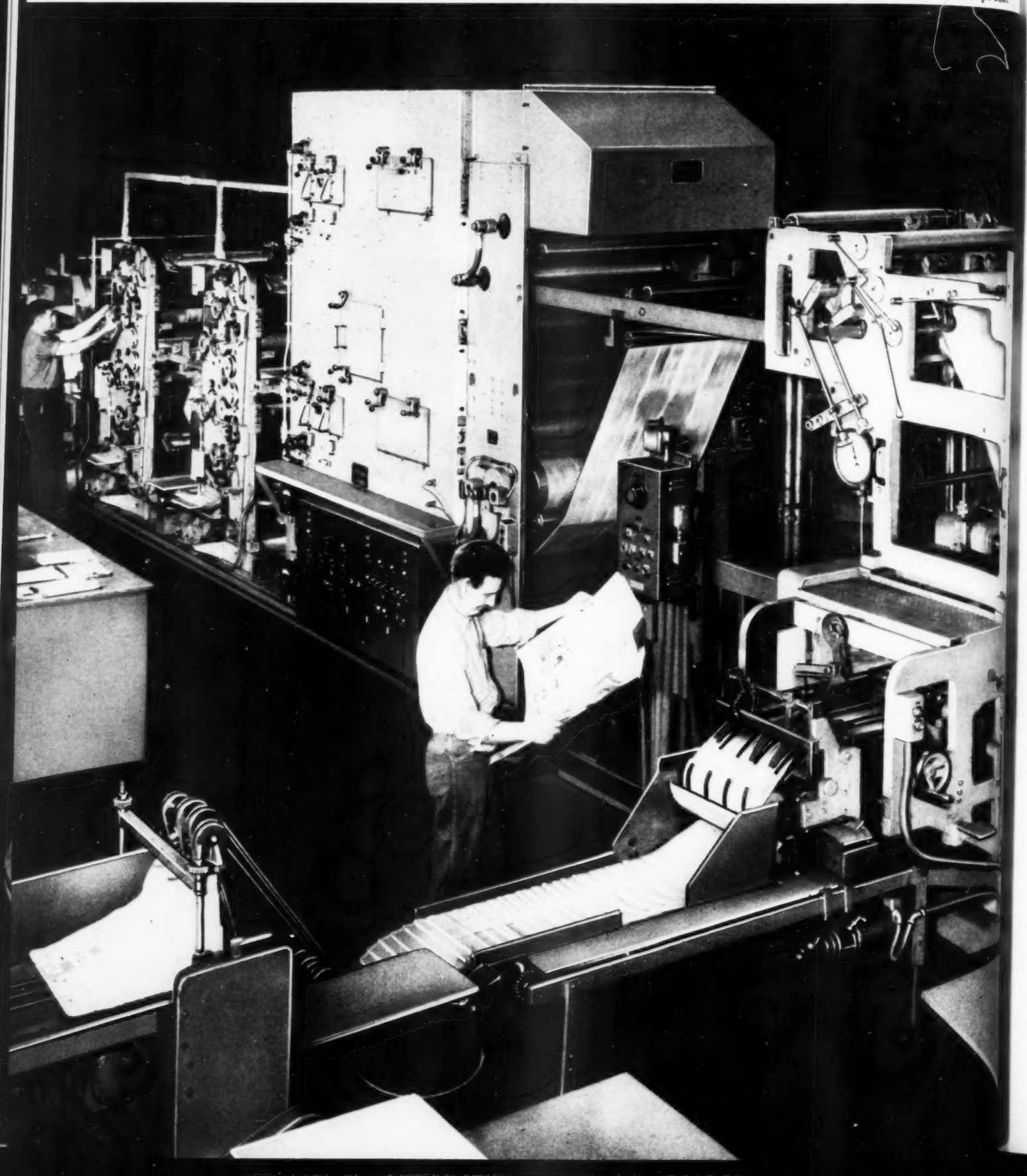
TENAK PRODUCTS COMPANY • **2615 N. Paulina Street, Chicago 14, Illinois**

Plastics for Letterpress | ALL TENAK PRODUCTS ARE FULLY GUARANTEED AND SHIPPED PREPAID THROUGHOUT THE UNITED STATES

For More Information Circle 158 on Reader Service Card

Danner Press of Canton

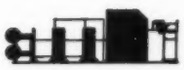
This is the new 22¾ x 35" ATF Press at Danner. Two printing units and a second high-speed folder are being added to this press.



speeds production with ATF Web Offset Publication Presses

Millions of copies of periodicals are printed, bound, addressed and mailed every month by this 275-man Ohio plant. All their presses are web-fed. At key spots in the Danner operation are two 22¾ x 35" *ATF Offset Publication Presses.*

The older of the two— a four-unit web-fed press—was purchased in 1948; and, according to Danner, "it is the real workhorse of our plant." This ATF press has unusual versatility. It has an ATF magazine folder at each end of the press and each printing unit can be fed with a roll of paper from the side. A roll can thus be run through just one printing unit, or two, three or four as per number of colors required, or additional rolls can be run to increase the number of signature pages.

 *A new two-unit 22¾ x 35" ATF Publication Press* was installed in January 1959. It handles most jobs at a net production of 18,000 signatures per hour; however, Charles Cheviron, Pressroom Superintendent, reports: "It runs very satisfactorily at higher speeds, too." This press is equipped with ATF's new High-Speed Folder and a packer which speeds the handling of the printed and folded product.

These ATF Presses are helping Danner print several dozen magazines, catalogs, children's books, booklets and many other types of work. An indication of the volume: an employee of the post office is stationed permanently at the plant to process mailings, and two carloads of paper are unloaded daily at their siding.

Find out how ATF Publication Presses can help you boost your volume of production—and profits. Write for illustrated brochure.

ATF

AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

For More Information Circle 10 on Reader Service Card

See for yourself how much more you get with Burgess Color-Tex

Special NO-PAC Mats for ROP Color

You have to see the BURGESS COLOR-TEX Mat . . . you have to *use* it to really believe how much it can mean in simplified operation and greater fidelity in your ROP color work.

BURGESS COLOR-TEX is a new idea. A color mat that can be cold-molded yet give faithful reproduction. Shrinkage is so low that registration problems are avoided. It's softer, more flexible. It compresses to the thickness of regular mats. Even if you now use regular mats packed head and foot, you can get the superb benefits of COLOR-TEX *with no equipment changes.*

ACT NOW and see for yourself what BURGESS COLOR-TEX Mats can do!

Write, phone or wire and we'll arrange a practical demonstration in your own plant under operating conditions!

BURGESS

CELLULOSE COMPANY

FREEPORT, ILLINOIS

Manufacturers and Distributors of Burgess Newspaper, Commercial and Supreme Tone-Tex Mats
Canadian Representative: R. M. Lousen & Co., Ltd., Kennedy Road, Agincourt, Ontario

For More Information Circle 26 on Reader Service Card

Try a roll of film savings

With Chemco Roll Film you save up to 30%

Simply by adopting Chemco Roll Film and roll film methods you can reduce present sheet film costs up to 30%. What's more, you will also increase your negative production and reduce film waste and spoilage. ¶ If these promises of improved efficiency in your camera department intrigue you, then write or phone us for the complete story.

chemco

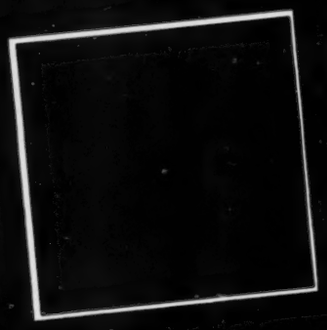
Chemco Photoproducts Company, Inc.

Glen Cove, New York

Branch Offices: Atlanta Boston Chicago Cleveland
Dallas New Orleans New York

Exclusive Agents in Canada: W. E. Booth Company, Ltd.
Exclusive West Coast Agents: California Ink Company, Inc.

For More Information Circle 40 on Reader Service Card



Speed King BLACKS

IPI Speed King Blacks are newly improved packaged inks, formulated to satisfy nine out of ten press assignments. Although they vary somewhat in characteristics, they all offer these advantages:

1. **Split-second setting**
2. **Ultra-fast drying**
3. **Improved press stability**
4. **Less dryback . . . almost as bright when dry as when wet, on coated stock**
5. **High finish on coated stocks; brilliant finish on enamel, *Kromekote, Lusterkote* and C1S label papers**
6. **Print sharp and clean**

Call your IPI salesman today for Speed King Packaged Blacks. And remember . . . IPI offers still other specialized blacks for every conceivable printing purpose!

SPEED KING PACKAGED BLACKS

SPEED KING JOB BLACK has a regular job press body and can be left on the press overnight because it contains no drier. Even after long shutdown, it is easily regenerated by the addition of fresh ink. Speed King Job Black sets and dries quickly and is recommended for general shop use on enamel, coated and absorbent stocks.

SPEED KING HALFTONE BLACK contains drier and should not be left on the press overnight. It sets and dries very fast with good gloss on enamel, coated and absorbent stocks, and performs well on some machine coated papers. Recommended for all top-quality letterpress halftone work.

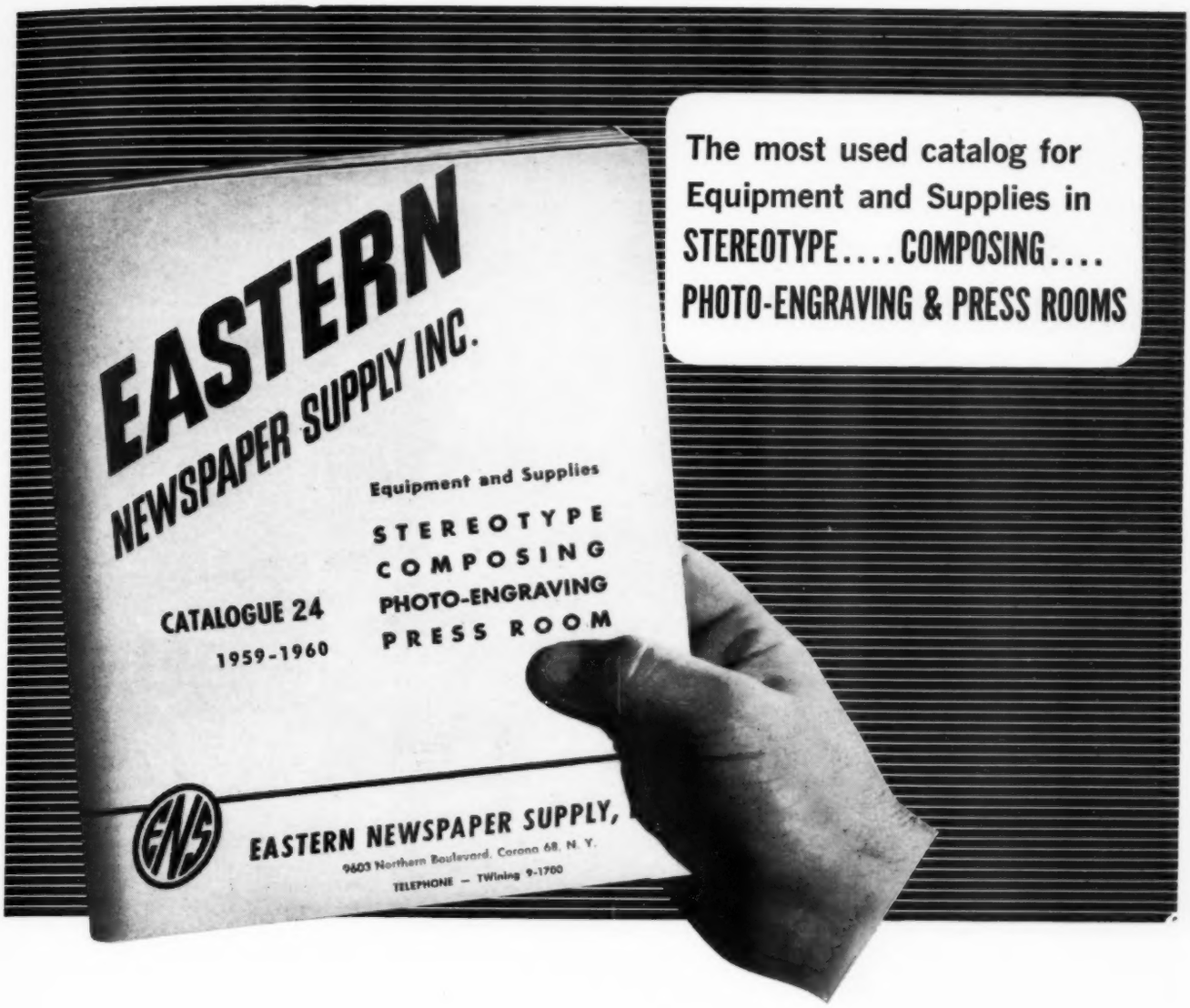
SPEED KING LITHO JET H.T. BLACK is of the highest quality—has excellent fountain flow, resists greasing and prints sharp, clean and dense. Sets extremely fast and dries quickly on coated stock—slightly slower on regular offset. Good rub and scratch resistance.

SPEED KING LITHO GEM BLACK sets extremely fast on coated paper and slightly slower on regular offset stocks—has good working qualities and is excellent for process work. Prints dense with good gloss; contains drier and cannot be left on the press overnight.

IPI, IC and Speed King are trademarks of Interchemical Corporation

CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.



Newspaper printing production facilities throughout the nation have for years considered Eastern the *first* name in equipment and supplies.

Today, the Eastern Catalog 24 lists more than 600 of the finest, most dependable products for virtually every production need . . . . for stereotype, composing, photo-engraving departments, and for press rooms.

IF YOU HAVE NOT RECEIVED THE NEW EASTERN CATALOG 24, write for your copy.

ORDER FROM EASTERN

ENS
EASTERN FOR ECONOMY

EASTERN
NEWSPAPER SUPPLY, INC.
96-03 NORTHERN BLVD., CORONA 68, NEW YORK

For More Information Circle 55 on Reader Service Card

←*For More Information Circle 96 on Reader Service Card*

WINDOWS ON THE WORLD OF
GRAPHIC ARTS COLOR . . .

TOOLS FOR THE
Visual CONTROL OF COLOR

If deadlines crowd you . . . but you still want to keep the COLOR Quality high, you should investigate EXAMOLITE Color Corrected Fixtures. Designed to simulate natural north sky daylight, and to the Graphic Arts Standard, Macbeth EXAMOLITE Fixtures give you:

(1) Color balanced lighting which is constant, always available.
(2) A light quality reproducible from shop to shop.
(3) A means of letting the night shift see color as well as the day.
(4) A tool which will pay for itself in more uniform color.

PLANT SUPERINTENDANT

PRINTER • PLATEMAKER ART DIRECTOR

FOR COMPLETE LITERATURE, FILL OUT THE COUPON BELOW.

MACBETH DAYLIGHTING CORPORATION
P. O. Box 950 Newburgh, N.Y.

☐ I am interested. Please have a salesman call.
☐ Please send me literature and prices on EXAMOLITE Fixtures.
☐ I would like to see a demonstration of the differences between incandescent, fluorescent and Macbeth lighting.

Name and Title_____
Company_____
Street_____
City_____ State_____

G-1

For More Information Circle 128 on Reader Service Card

MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn. — 1961 Conv., Pittsburgh Hilton Hotel, Pittsburgh, Oct. 23-25. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA-RI Mechanical Conf.—1961 Conf., Palmer House, Chicago, June 5-7. Mgr. Richard L. Lewis, ANPA-RI Mechanical and Service Div., 750 Third Ave., New York 17.

Book Manufacturers' Institute — Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—Secy.-Treas. Avery Schlaghek, 4350 Lyman Rd., Toledo, O.

Flexographic Technical Assn.—1961 Meeting, Hotel Roosevelt, New York, Feb. 9-10. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—Secy.-Treas. Doris Hall, 321 Tower Bldg., Washington 5, D. C.

Gravure Technical Assn.—1961 Conv., Hotel Drake, Chicago, Mar. 8-10. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1961 Conf., Hotel Gibson, Cincinnati, Jan. 22-24. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News*.

Intl. Assn. of Electrotypers & Stereotypers, Inc.—Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1961 Conv., Palmer House, Chicago, Aug. 6-9. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19.

Intl. Graphic Arts Education Assn.—1961 Conf., Ferris Institute, Big Rapids, Mich., Aug. 13-18. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1961 Meeting, Palmer House, Chicago, Aug., 6-9. Secy. Harry Deck, 75 E. Wacker Dr., Chicago 1.

Intl. Typographic Composition Assn.—1961 Conv., The Queen Elizabeth, Montreal, Can., Oct. 4-7. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St., and New York Ave., N.W., Washington 5, D. C.

(*Continued on Page 28*)

PERFECTION® PERFORATOR TAPE

For ALL Automatic TYPESETTING Needs

Every operation in the manufacture of this uniform, high quality tape is scientifically controlled to produce a trouble-free, smooth-performing vehicle for the accurate and swift transmission of vital data.

Leaders in the communications field and in industry use PERFECTION® PRODUCTS with complete CONFIDENCE and satisfaction.

PERFECTION® PERFORMANCE IS RELIABLE. CONSTANT SCIENTIFIC LABORATORY CONTROL MAKES IT FIRST CHOICE BY LEADERS OF INDUSTRY

Inventories in 90 Locations
AT LEADING PAPER MERCHANTS EVERYWHERE

PERFECTION®

PAPER MANUFACTURERS COMPANY

PHILADELPHIA 15, PENNSYLVANIA

Sales Representatives: ATLANTA • CHICAGO • CLEVELAND
DALLAS • KANSAS CITY • LOS ANGELES • NEW ENGLAND
NEW YORK • SAN FRANCISCO • SYRACUSE

209 T

For More Information Circle 143 on Reader Service Card

Printing Industry Meetings

(Continued from Page 26)

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller, Kansas Press Assn., 701 Jackson St., Topeka, Kans. Missouri Secy.-Treas. William A. Bray, Missouri Press Assn., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assn.—1961 Conv., Arizona Biltmore, Phoenix, Ariz., Apr. 30-May 5. Dir. Oscar Whitehouse, 1025 Connecticut Ave. N.W., Washington 6, D. C.

Mid-Atlantic Newspaper Mechanical Conf.—1961 Conf., Penn-Sheraton Hotel, Pittsburgh, Mar. 22-25. Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs, Inc.—1961 Conv., Statler Hotel, Dayton, O., May 4-6. Exec. Secy. Edward M. Harwood, 430 S. Clark St., Chicago 5.

National Assn. of Photo-Lithographers—1961 Conv., Hotel Commodore, New York, Sept. 27-30. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, New York.

National Paper Trade Assn.—1961 Confs., Waldorf Astoria, New York, Mar. 26-29; Conrad Hilton Hotel, Chicago, Oct. 31-Nov. 3. Exec. Secy. O. Glenn Leach, 220 E. 42nd St St., New York 17.

National Printing Equipment Assn., Inc.—Exec. Secy. Harry L. Gage, 140 Nassau St., New York 38.

National Safety Council Printing and Publishing Section—Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn.—Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun.*

New England Newspaper Mechanical Conf.—1961 Conf., Hotel Statler Hilton Boston, Oct. 21-22. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day.*

Newspaper ROP Color Conf.—Secy. Arthur Brashears, American Assn. of Newspaper Representatives, 141 E. 44th St., New York.

Northwest Mechanical Conf.—1961 Conf., Hotel St. Paul, St. Paul, Mar. 4-6. Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Pacific Newspaper Mechanical Conf.—Secy. Donald Newhouse, Portland (Ore.) *Oregonian.*

Packaging Institute Assn.—1960 Meeting, Hotel Statler, New York, Oct. 31-Nov. 2. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America—1961 Conv., Statler Hilton Hotel, Pittsburgh, Oct. 9-14. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1961 Meeting, Hotel Fort Des Moines, Des Moines, Ia., May 22-24. Managing Dir. Robert E. Rossell, 1411 K St., N.W., Washington 5, D. C.

Screen Process Printing Assn., Intl.—1960 Conv., Hotel Sherman, Chicago, Nov. 11-13. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

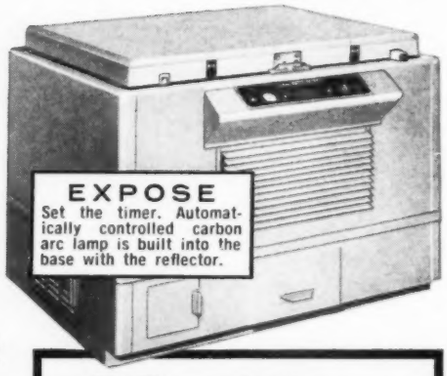
SNPA (Eastern Div.) Mechanical Conf.—1961 Conf., Hotel Dinkler-Plaza, Atlanta, Aug. 6-8. Secy. James B. Brotbeck, P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1961 Conf., Hotel Adolphus, Dallas, Mar. 5-7. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn.—1961 Conf., Hotel Dinkler-Andrew Jackson, Nashville, Tenn., May 3-5. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assn. of the Graphic Arts—1961 Conf., Deshler-Hilton Hotel, Columbus, O., June 12-14. Exec. Secy. Earl Sundeen, P. O. Box 3064, Federal Station, Rochester 4, N. Y.

Obsoletes all other Platemakers!



nuArc flip-top PLATE MAKER

Fast—simple—clean—compact. nuArc flip-top platemakers are the modern way to make perfect offset and letterpress plates.

A specially designed carbon arc reflector floods every square inch of printing surface with even light...eliminating undercutting and decreasing exposure time. Live rubber blanket guarantees perfect negative-to-plate contact.

You save with flip-top units in the initial cost (cost 30% less than separate frame and arc lamp units), in the installation (no partitions, curtains or external exhaust systems necessary), and in the operation (easier, faster operation than with conventional units).

*Send for the latest "flip-top" Bulletin A-500PP

13 • 18 MODEL FT-18
17 • 24 MODEL FT-24
21 • 26 MODEL FT-36
28 • 32 MODEL FT-32
30 • 40 MODEL FT-40
43 • 52 MODEL FT-52

MODELS FT-32, 40, AND 52 ARE ALSO AVAILABLE IN DELUXE SERIES WITH MOTOR DRIVEN ARC LAMP MECHANISM.

nuArc COMPANY, INC.
General Office and Factory: 4110 W. Grand Ave. • Chicago 51, Ill.
Sales and Service: New York • Los Angeles

new VAC-LUBE
COMPOUNDED ESPECIALLY FOR VACUUM PUMPS
Gives better lubricating—less wear—provides maximum pump protection. Can has easy pour spout. $1.00 pint—AT YOUR nuArc DEALERS NOW!

For More Information Circle 138 on Reader Service Card

Every time you stop your press to load or unload, you're eating into your profit potential. No wonder *true Continuous Operation*—even on the smallest sizes—is one of the many reasons progressive lithographers are switching to Miehle Offset Presses.

THE PRESS KEEPS PRINTING → THE PRESS KEEPS PRINTING → THE PRESS KEEPS PRINTING → THE PRESS KEEPS PRINTING →

WITHOUT STOPPING

Miehle Continuous Operation saves valuable time by enabling you to load and unload *while the press continues to print.* This saves blanket wash-ups, maintains constant color, drastically reduces waste sheets. It gives you extra running time that can mean thousands of additional sheets per day.

Do more in less time. Investigate Miehle Continuous Operation today.

THE MIEHLE COMPANY
Division of
Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois

For More Information Circle 117 on Reader Service Card

Now You Can Try The Beautiful New

BLUE RIBBON CONTRAST MAT

Instantly Popular With All Users

BLUE RIBBON*

*REG. U.S. PAT. OFFICE

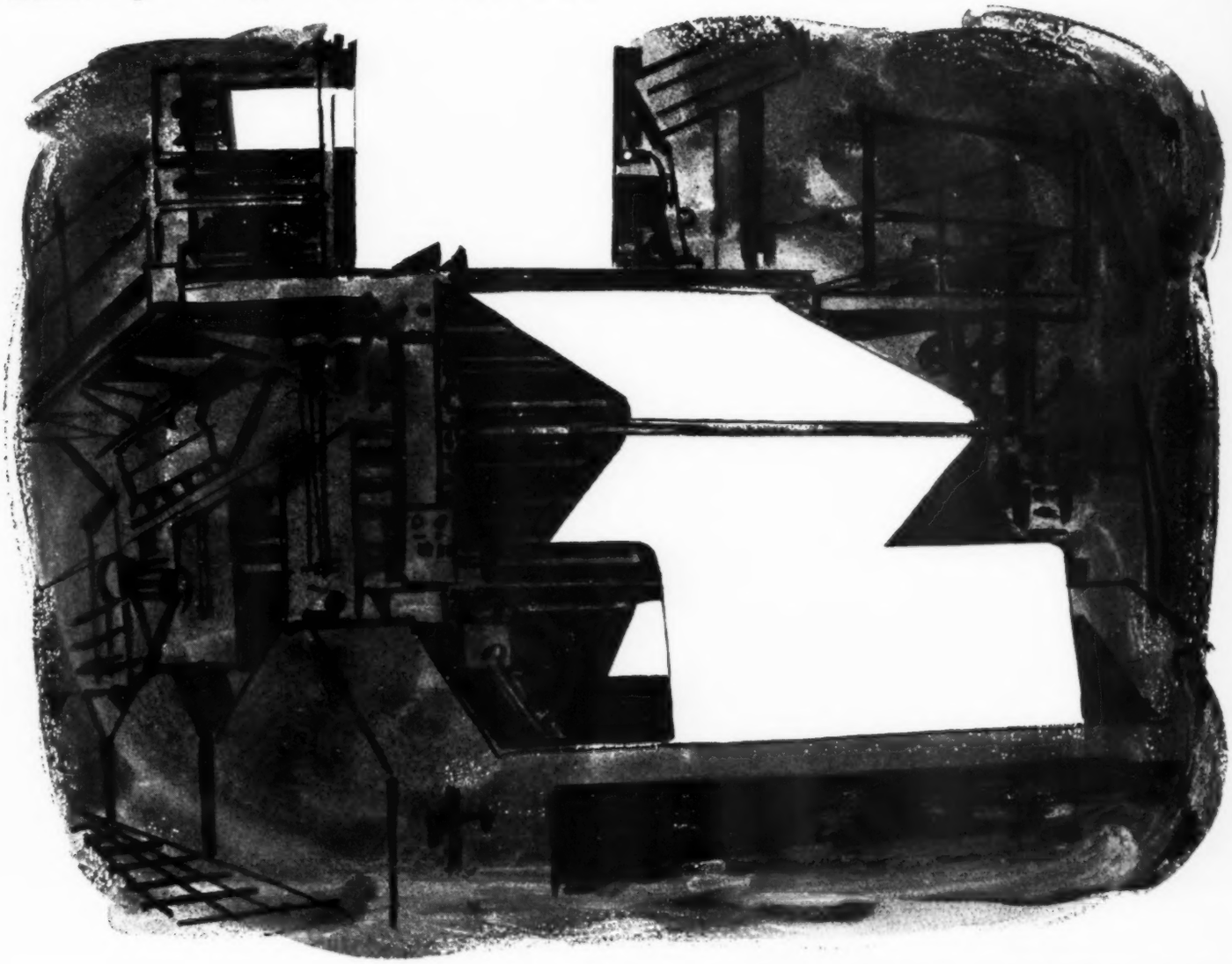
The Contrast is an entirely new mat in the Blue Ribbon Line featuring Color Contrast with Beautiful Reproduction ★ Ample Casts ★ Fine Release ★ Accurate Register

FOR SAMPLES or DEMONSTRATIONS, WRITE:

CERTIFIED DRY MAT CORPORATION
555 Fifth Avenue New York 17, N.Y.

For More Information Circle 36 on Reader Service Card

Before you buy a press drive . . .



Let's Talk System CO-ORDINATION

GENERAL ELECTRIC SYSTEM CO-ORDINATION makes your power-distribution equipment an integral part of the drive system. G-E load-center unit substations (extreme right) at the *Philadelphia Bulletin* match and line up with the control and rectifier panels for 72 press units and 14 folders.

Progress Is Our Most Important Product

GENERAL ELECTRIC

Along with your new General Electric d-c press drive, you get *more* than the finest motors, control, rectifiers, and power-distribution equipment. You gain real benefits from General Electric's highly developed concept of system co-ordination.

SYSTEM CO-ORDINATION means that General Electric designs, manufactures, sells, and services the *complete* drive system—including even switchgear and unit substations. General Electric application engineers—working closely with your press manufacturer—help you determine your needs, then design a drive system that is a smooth-running blend of carefully selected and proved heavy-duty components—custom-designed for your presses.

YOUR BENEFITS from General Electric system co-ordination also include:

- One order for drive and power systems.
- Unit responsibility for entire electrical system.
- A single, local sales contact.
- Nearby G-E service for 24-hour maintenance.

CALL YOUR LOCAL GENERAL ELECTRIC Apparatus Sales Office for more information about G-E system co-ordination for your press drive. And write for Bulletin GET-2504, Section 653–55, General Electric Company, Schenectady 5, New York.

For More Information Circle 68 on Reader Service Card

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. **The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.**

Composing Room

ROUSE EQUIPMENT CATALOG

Rouse equipment is described in a catalog published by H. B. Rouse & Co. Included is information on mitering machines, lead and rule cutters, composing sticks, type gauges, slug clippers and hand saws. Circle No. 331 on Reader Card.

FAIRCHILD TELETYPESETTER

A 24 page booklet describing the Teletypesetter has been made available by Fairchild Graphic Equipment, Div. of Fairchild Camera and Instrument Corp. Reportedly, the Teletypesetter casts type from 5½ pt. to 14 pt. in size in any type face. Circle No. 317 on Reader Card.

HEADLINES FROM THE KEYBOARD

Samples of headlines produced from the keyboard of a Linotype Rangemaster are available from Mergenthaler Linotype Co. Entitled *Headlines from the Keyboard*, the booklet illustrates 42 headline forms in one, two and three column measures. Circle No. 310 on Reader Service Card.

DISPLAY TYPECASTING MACHINE

The Nebitype linecasting machine is described in literature issued by Lanston Monotype Co., Div. of Lanston Industries, Inc. The machine will cast slugs in lines up to 42 ems in length. Circle No. 333 on Reader Service Card.

Platemaking

ATF STEP AND REPEAT MACHINE

An information sheet has been published on the ATF-Gerson Multiplator by American Type Founders Co., Inc. The unit is a 36 in. by 48 in. step and repeat machine. Single and multicolor, multiple image work and combination layouts can be handled by the Multiplator. Circle No. 326 on Reader Service Card.

LANSTON PHOTOMECHANICAL EQUIPMENT

A booklet describing Lanston's line of photomechanical equipment has been prepared by Lanston Monotype Co., Div. of Lanston Industries, Inc. Included are step-and-repeat machines, cameras, plate coating machines and darkroom sinks. Circle No. 340 on Reader Service Card.

MASKING AND REPRO PROOFING PAPER

A sample kit of APCO masking and reproduction proofing paper has been compiled by Appleton Coated Paper Co. Circle No. 334 on Reader Service Card.

MASTER PLATEMAKING EQUIPMENT

Informative literature on Master platemaking equipment for letterpress plates has been prepared by Master Sales & Service Corp. Described in the literature are flat washout units, conditioning cabinets, arc lamps and flat vacuum exposure units. Circle No. 312 on Reader Card.

LITHOGRAPHIC EQUIPMENT CATALOG

A catalog of lithographic equipment manufactured by Hamilton Mfg. Co. has been made available. Included in the catalog are layout tables, developing sink and storage equipment, and drawing and etching tables. Circle No. 324 on Reader Service Card.

USES OF PRESSURE SENSITIVE TAPE

A manual describing uses of pressure sensitive tape in the Graphic Arts industry has been published by Minnesota Mining and Mfg. Co. Applications listed range from opaquing negatives to adhering shells to the inside of centrifugal casting drums. Other uses suggested are: Separating negatives and contacts, correcting photocomposition and offset plates, and holding proof sheets. Circle No. 323 on Reader Service Card.

A booklet describing Prone gummed label paper is available from Mid-States Gummed Paper Div., Minnesota Mining & Mfg. Co. Swatches of the paper are included. Circle No. 311 on Reader Service Card.

KODAK FILMS WITH ESTAR BASE

A publication describing Kodak Graphic Arts films available on Estar base has been prepared by Eastman Kodak Co. Listed as Pamphlet No. Q-2F, the booklet is a supplement to the data book, *Kodak Graphic Arts Films and Plates.* Exposure, processing and sensitometric data are included. Circle No. 307 on Reader Service Card.

HAMMOND STEREO EQUIPMENT

Literature has been made available on stereo equipment manufactured by Hammond Machinery Builders, Inc. Included is information on the Easy Kaster, scorcher, radial router and plate shaver. Circle No. 342 on Reader Service Card.

Pressroom

INK CONTROL ADDITIVE

Literature describing Safeset, an ink control additive, has been released by Indiana Chemical & Mfg., Co. Reportedly, the additive controls drying, crystallizing, offsetting, tacking and picking. Circle No. 327 on Reader Service Card.

CHAMPION OFFSET PRESS

HCM Corporation has announced the availability of literature on the Champion two color offset press. The press is manufactured by Color Metal, a Swiss corporation. Champion is said to operate at speeds of 7200 sheets per hr. Maximum sheet size is 26¾ in. by 38½ in. Circle No. 316 on Reader Service Card.

DREISSIG BRONZING MACHINES

Dreissig bronzing machines are described in literature prepared by Henry P. Korn, Associated, Inc. Circle No. 318 on Reader Service Card.

REBUILT HEIDELBERG PRESSES

The process followed in rebuilding Heidelberg presses is described in a folder issued by Heidelberg Eastern, Inc. Information regarding services available to purchasers of rebuilt Heidelbergs is also included. Circle No. 306 on Reader Service Card.

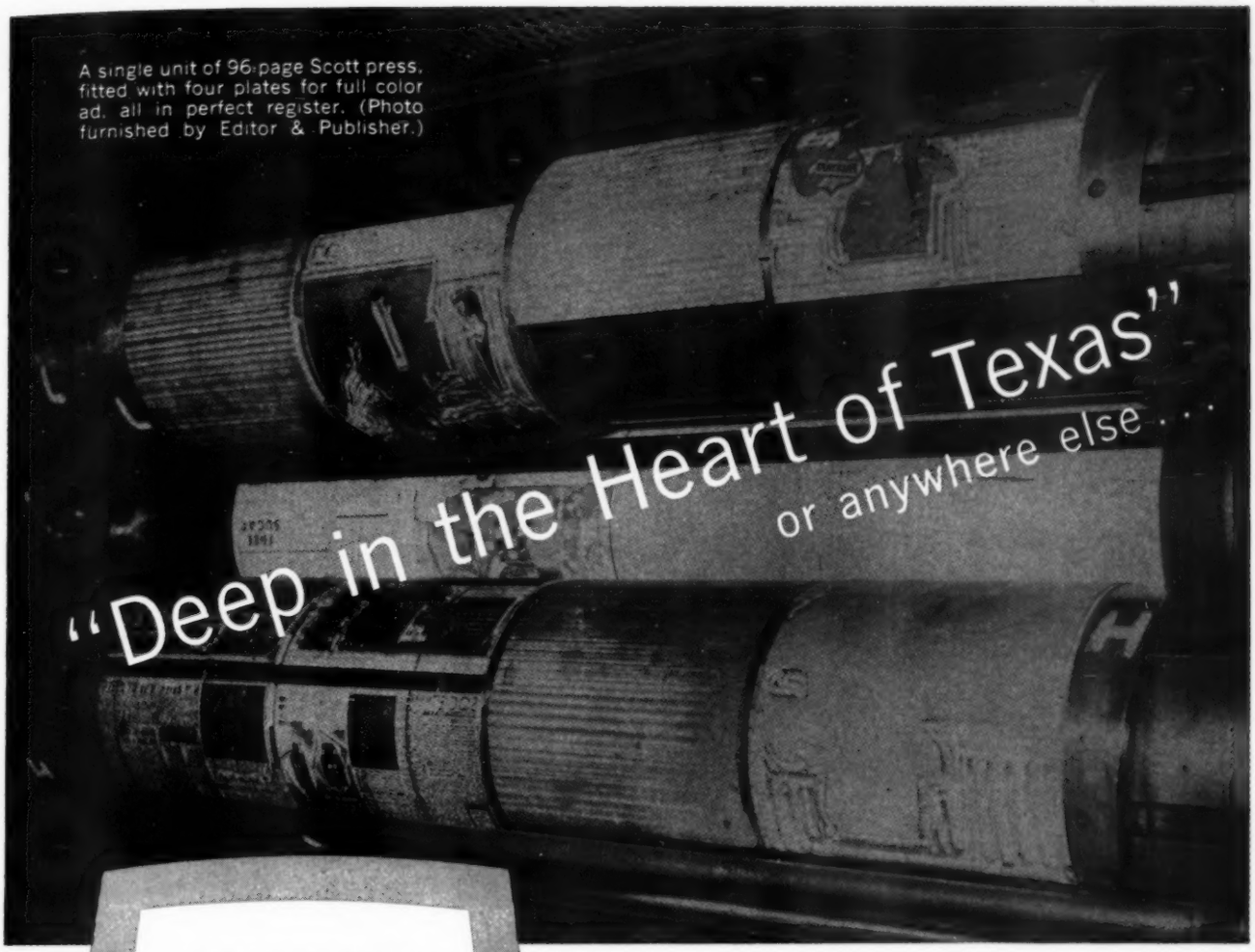
ATF CHIEF 29

A booklet featuring the ATF Chief 29 has been made available by American Type Founders Co., Inc. The press measures 23 in. by 29 in. Circle No. 319 on Reader Service Card.

TWO COLOR OFFSET PERFECTOR PRESS

Literature which features the Miller TPJ, 23 in. by 36 in., two color offset

(*Continued on Page* 90)


A single unit of 96-page Scott press, fitted with four plates for full color ad, all in perfect register. (Photo furnished by Editor & Publisher.)
"Deep in the Heart of Texas"
or anywhere else . . .

SET-UP OF PRESS

Six multi-color units equipped with three (only) color cylinders.

ONE UNIT TO PRODUCE 3-COLOR AND BLACK, EITHER SIDE

One Color Cylinder on unit, two additional rollers, will produce:

Double Truck, 3-Colors & black; also black on reverse side of sheet.

Spot Color **and** black, both sides — **Five** impressions; four on one side, one on reverse. Or, two on one side, three on reverse.

Maximum for all units, running collect; 24 Spot Colors at one time.

4 Full Colors, 16 Spot Colors at one time.

You can't beat SCOTT equipment

for Utmost Flexibility in Color Printing!

The Midland, Texas, Reporter-Telegram produces a newspaper with a circulation of 19,000. In 1959 they ran *more than 2¼ million lines of ROP color advertising, First in Texas, Third in the United States in color lineage.* Local merchants used 90% of the space because "Color gets results for advertisers."

The Reporter-Telegram did it on a 96-page SCOTT press . . . six multi-color units equipped with three color cylinders. For ingenuity and resourcefulness, the "Color Team" of this fast-growing newspaper rates an Oscar and, the flexibility of SCOTT equipment made it possible.

HERE'S HOW IT WAS DONE . . .

If you are interested in spot or multi-color printing, a SCOTT engineer can show you how to install it in your plant.

WALTER SCOTT & CO.

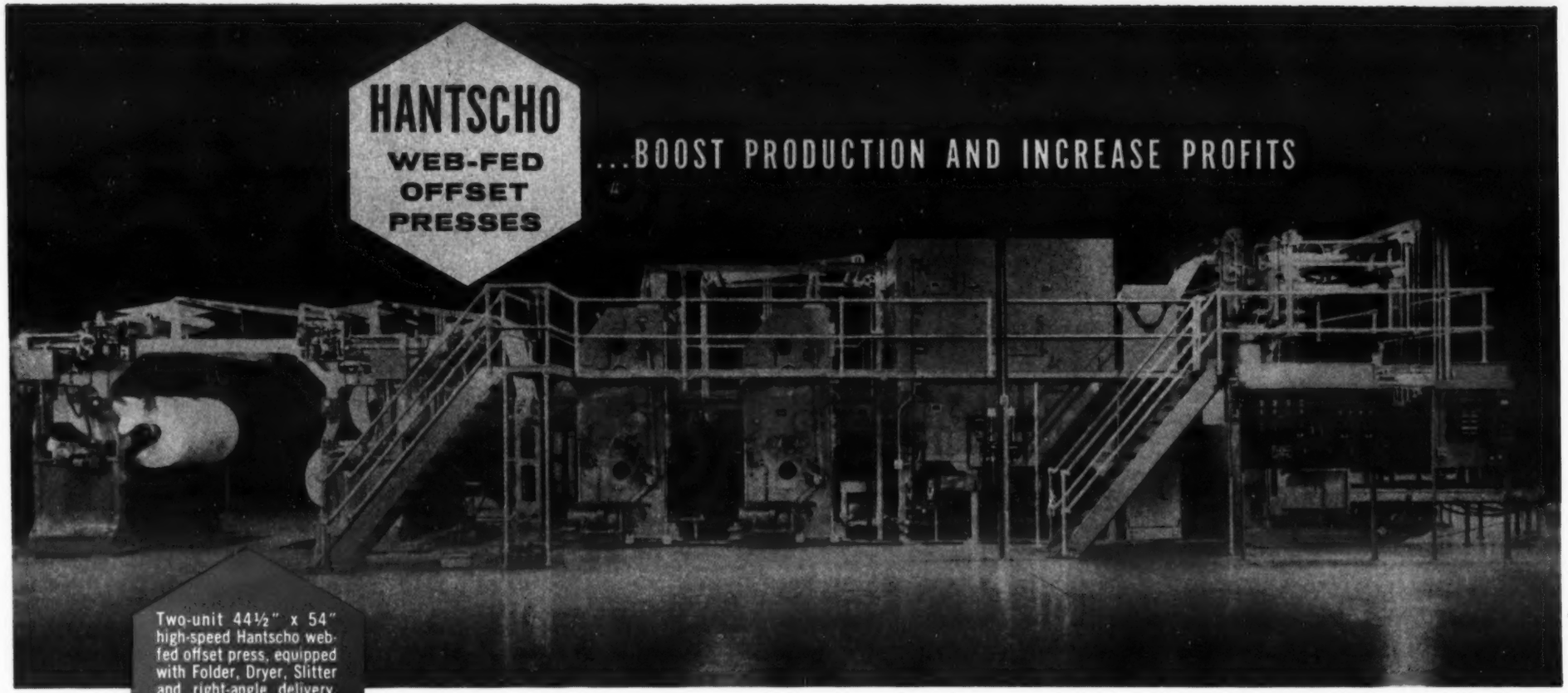
DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION • PLANT: PLAINFIELD, N. J.
EXECUTIVE & SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, NEW YORK

SCOTT presses

For More Information Circle 156 on Reader Service Card

HANTSCHO
WEB-FED OFFSET PRESSES

...BOOST PRODUCTION AND INCREASE PROFITS



Two-unit 44½" x 54" high-speed Hantscho web-fed offset press, equipped with Folder, Dryer, Slitter and right-angle delivery. Wood Reels, Tension and Autopasters complete the installation.

HANTSCHO presses are RIGHT in design, performance, quality, price.

We invite inquiries from responsible firms regarding Hantscho custom-built presses.

You can rely on Hantscho presses to produce *QUALITY* printing at high speeds.

These outstanding presses are custom-built to meet the user's exact requirements in any number of units for roll-to-roll or roll-to-sheet printing. Leading publishing firms and commercial printers who are producing highest quality multi-color printing, are high in their praise of their Hantscho press equipment.

GEORGE Hantscho CO., INC.

602 SOUTH THIRD AVENUE MOUNT VERNON, NEW YORK

MIDWEST REPRESENTATIVE: 153 WEST HURON STREET, CHICAGO, ILL.

For More Information Circle 81 on Reader Service Card

PRINTING PRODUCTION

Pay Attention to Your Printing Schools

There are no PTA's in the printing industry; no watchful Boards of Education; in many cases, not enough interested individuals who are willing to do something about education. Probably because of such a situation, education for printers has received many serious setbacks in the last 15 years.

Most alarming has been the abolishment of Carnegie Institute of Technology's School of Printing Management. In its place has come the Department of Graphic Arts of Carnegie's College of Fine Arts which offers little more for students of printing in its four year program than could be obtained at any business or design college. The low popularity of such a course of study is evident in that only a dozen students enrolled at Carnegie this year. This is a glaring comparison with the large number of talented people graduated in recent years by this college's Printing School.

During the war years in Boston, Wentworth Institute removed its printing program to make room for training in more vitally needed areas, but the two year course was never reactivated. In recent years, Cleveland has opened a multi-million dollar trade school—named after a printer—but which does not even offer any form of printing education.

At Rochester Institute of Technology trustees are considering conversion to a county and state supported Community College. Whether such a move will be in the best interests of the national printing education picture remains to be decided. Frequently such colleges give first preference to students of the state paying the bill. We would like to see acceptance kept on a competitive basis so that students of the other 49 states and of other countries will have an equal opportunity to enroll in the printing course.

What can you do to improve the printing education situation? We suggest: (1) Express your opinions on study programs to a college or to this magazine; (2) Join (through company membership) and support the Education Council of the Graphic Arts Industry; (3) Take an active part in alumni associations; (4) Insist that organized printing groups in your city adopt some form of educational objectives.

New York City printers helped build a $12 million printing school. This is proof that effective action can be taken.

ANNIVERSARIES

BIRTHDAYS

CHRISTMAS

SYMPATHY

EASTER

FATHER'S DAY

ILLNESS

VALENTINE'S DAY

MOTHER'S DAY

WEDDINGS

Special Occasions Mean Complex Production Situations for the

GREETING CARD PRINTER

By GEORGE WILLIAMS

CONVEYOR of sentiment, missile of cynicism, purveyor of wit, and vehicle of the verbal barb—all this and more is the greeting card.

Few phases of the Graphic Arts industry are so completely dependent upon creative design and the well-turned phrase as is the greeting card industry. Certainly, no other segment of Graphic Arts utilizes so wide an array of processes in daily production. Since originality plays such an important role in the success of designs, guarding the projected lines for a coming season is undertaken with no less zeal than that employed by the steel-molders of Detroit or the stylists of Paris. Secrecy is the watchword!

The greeting card manufacturer occupies a unique position compared to most printers because he must produce his product before he can sell it. There are certain advantages inherent in this kind of business, especially from the production planning and scheduling viewpoint. However, it would be wrong to assume that there are no production problems involved.

Each new design presents its own problems just as each commercial printing job does. In addition, projecting production as much as a year in advance and catering to the whims of the consumer in a society as cosmopolitan as ours are no easy tasks.

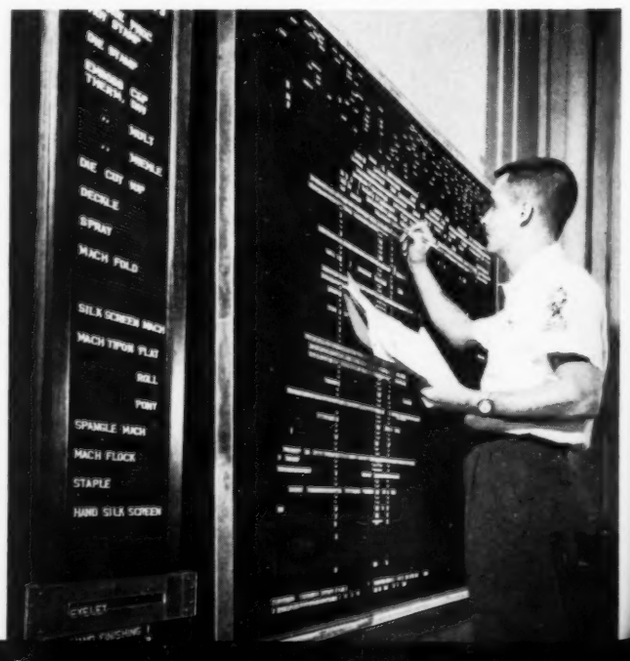
Constant surveillance of the market and trends is necessary. The decision to produce or not to produce a given design means profit or loss. Underproduce and potential sales are lost or a costly rush reprint must be made. Overproduce and unsold merchandise makes red tracks on the profit and loss statement.

Geographic areas must be considered in marketing. Cards to *Nana* sell well in the East but are not popular in the Midwest; humorous cards sell better than conventional types in the Far West. Complex? Yes, but this is the kind of complexity which makes the greeting card business interesting and challenging.

Manufacture of greeting cards on a commercial basis began in 1874. Foremost in the business at that time was Louis Prang, an American lithographer who utilized as many as 20 colors in production of his designs. Considerable impetus was given the industry as a result of the two World Wars.

Although the greeting card industry is but a small segment of the Graphic Arts, its size and complexity are impressive. Last year in the United States alone, more than four billion greeting cards were sold in a

Members of the planning and scheduling department record the step by step production scheduling of card designs on American Greetings' master load board. Production times for the processes are shown by the length of the strips on the board.



Maximum sheet sizes of Valentine cards are die cut on a Miehle press at the main plant of American Greetings Corp. in Cleveland.

variety of retail outlets for an estimated $602 million.

As an indication of the growth of the greeting card industry, consider the history of American Greetings Corp., Cleveland. Started in 1906 as a one-man jobbing operation, the firm first manufactured cards in 1932. By 1951, sales were nearly $13 million and by 1959 the company sales volume amounted to more than $38.5 million.

Card production of the Cleveland company totals approximately a half-billion a year. Add to this figure the production of gift wrap paper, tags, seals, ribbon, etc., and some idea will be gained of the size of one of the largest of the 400 companies engaged in production of greeting cards and related items.

American Greetings operates nine domestic plants, the largest of which comprises some 500,000 sq. ft., and has affiliates in Canada, Australia, England, France, Italy, Germany and other countries. Domestically, it employs some 3000 people.

During the last 20 years, the nature of the greeting card industry has undergone a transformation. Before, Christmas cards accounted for approximately 60% of all cards purchased and sent. Today Christmas cards account for less than 20% and seasonal cards for less than 60% of the total. These figures seem to indicate that Americans have acquired the social habit of sending greetings for just about any occasion.

Card Production Flow Outlined

At American Greetings a card begins its journey to the retail store as much as 22 months before it is offered for sale. A brief outline of its production follows:

The initial stage in planning a line of cards is an attempt to forecast public taste at the time the line will be marketed. Art techniques, color combinations, card shapes, new approaches in message expression, paper stocks, finishing touches—all these are explored and quality standards are set.

The creative artist then attempts to produce a design which conforms to the information provided by researchers and stylists. After submission to the art directors, the final design is judged by quality and styling levels already established.

Most of the American Greetings two lines of cards (American Greetings and Forget-Me-Not) are lithographed by independent lithographers in widely scattered areas. The lithographers work from color separation positives which are supplied to them. All compo-

American Greetings has replaced slow hand insertion, right, with a company developed machine, above. The unit interleaves 21,000 cards and envelopes per hr.

Effective industrial engineering techniques and quality control testing are vital to profitable greeting card production. At left, an American Greetings engineer gathers time motion study data; at right, quality control personnel perform tests on raw materials.

nents of the job—paper, ink, art and a very rigid quality control program —insure that production will attain original standards. Gift wrap is produced primarily by gravure and flexographic processes. Continuity of design makes this a necessity; although some cut sheet gift wrap is produced by offset lithography.

Complex Finishing Processes

Any design may have as few as two or as many as five finishing operations. These range from a simple cut and fold, to embossing, die cutting, hot stamping, thermography, electrostatic flocking, spangles, glitter, jewels, pillow sachets and special attachments in various combinations.

After finishing comes the packaging operation. Cards are packed in boxes for box assortments or in kraft bags for open stock sale at the retail level.

One of the most fascinating aspects of the business is order filling, which is acomplished supermarket style. Women, orders in hand, make the rounds of the flow racks, pulling out requested card quantities. When complete, orders are checked and placed on a conveyor to the shipping department. Smooth flow of orders through shipping is imperative. Retailers take a dim view of receiving Christmas cards one or two days before the holiday, yet shipment must be timed so that arrival is not too early.

The production stages listed represent but a sketchy picture of workflow and card production. There are yet a myriad of supplemental production areas and services needed to facilitate card production. One of the most important of these is the manufacture of envelopes.

Production amounting to 13 million envelopes per week is not unusual. Made from die cut blanks and a continuous web, envelopes must correspond to the many sizes of cards. A battery of wide range and webfed machines producing from 277 to 500 envelopes per min. are necessary to keep pace with card production.

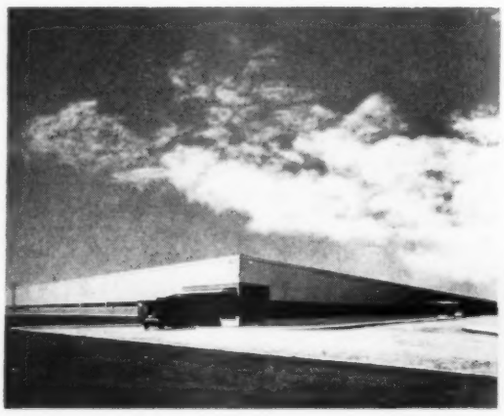
In addition, operations such as embossing and hot stamp die making, making rubber and Dycril photopolymer plates, imprinting paper bags for retail outlets, printing of file cards and mounts, and production of cores for gift wrap rolls must be dovetailed into the production scheme.

Producing Special Effects

The choice of lithography for greeting card production is dictated by the nature of greeting card design which involves use of fine screens, softly vignetted illustrations, and papers ranging from book to Kromekote and antiques to vegetable parchment. Fuzzy and glossy finishes and other special effects demand that numerous other processes be utilized by the greeting card manufacturer. The fuzzy finish on some cards is accomplished by printing the design with adhesive, utilizing silk screen or rubber plates, then passing the card through an electrostatic flocking machine. Tiny

(Continued on Page 96)

Below are four Cleveland plants of American Greetings Corp. Clockwise from the upper left, are: The newly constructed storage facilities, the platemaking division known as Color Process Co.; the building housing the design and production departments, and the main manufacturing plant. American Greetings operates nine domestic plants and foreign plants in England and Canada.



Reduction of makeready time is an important objective in the letterpress pressroom. Careful stabbing of the packing together with positioning the overlay in register with the stab marks will shorten the time. The stop shoulder above the 0.045 in. depth C-shaped die on this stabbing tool prevents driving the die below the permanent packing which might damage the impression cylinder.

Registering Overlays By Use Of Special Makeready Stabber

THERE has always been a driving desire on the part of management to reduce production costs. One of the vulnerable spots in the letterpress commercial printing plant is in the pressroom.

Management is conscious of the value of quality control of raw materials such as paper and ink, as well as control of certain operations associated with production. Some of these are related to accentuated control of photoengraving base materials, limited plus or minus tolerances in type height, tension limit lockup in special chases, and color lighting systems to enable matching the engraver's proofs, including press makeready systems and procedures.

To extend and complement this trend, any operation which can be the means for standardizing makeready techniques in the pressroom should be considered by the foreman and his men.

Much attention has been paid to the cost of letterpress makeready by printing plant management. A great deal of attention has been given to it in order to reduce the length of time necessary to get the press rolling on a production basis.

In recent years, several systems have been introduced into the letterpress printing industry. Most prominent are the 3M and Vandercook systems. These are intended to supplant the handcut systems upon which the skill of the individual pressman was so highly dependent. It should also be mentioned that the skill of the pressman still is needed but in a different manner.

Accurate Stabbing a Necessity

Irrespective of the system used, including other than the two just mentioned, it does not appear that the fullest benefit of the time shortening properties of the systems can be realized without further technique improvement. This consists of a dependable means for returning the overlay sheet to the impression cylinder in exact register with its original stabbed position.

In this respect, the stabbing tool is an important part of the pressman's equipment.

A variety of stabbing tools is in use in the industry. These consist of single point and right angle slit stabbers and other more or less efficient instruments such as pocket knives, etc.

Although a specific type of stabber may be used exclusively by one pressman with proficiency, as a rule it could not be employed at a given instant by another pressman with efficiency. This in case of illness when a pressman's partially completed work must be finished by someone else. Another instance would be during a change in shifts where the overlay work has not been completed and the second shift pressman picks up the work.

Accuracy of Overlay Register

Stabbing the makeready or overlay sheet after it has been printed is a particular operation. The reason is that after treatment to bring out fullest possible values in the illustrations as well as the type matter, it must be returned to its exact previous position in the packing on the impression cylinder.

In some cases, it is admitted, return of the overlay to exact position may not be critical. In general, however, makeready operations over a period of time will be reduced considerably, especially if the means are provided to make positioning of the overlay easy for the pressman. If the overlay has been properly stabbed he can then dismiss the register problem from his mind and proceed with his work.

Proper Stabber Position

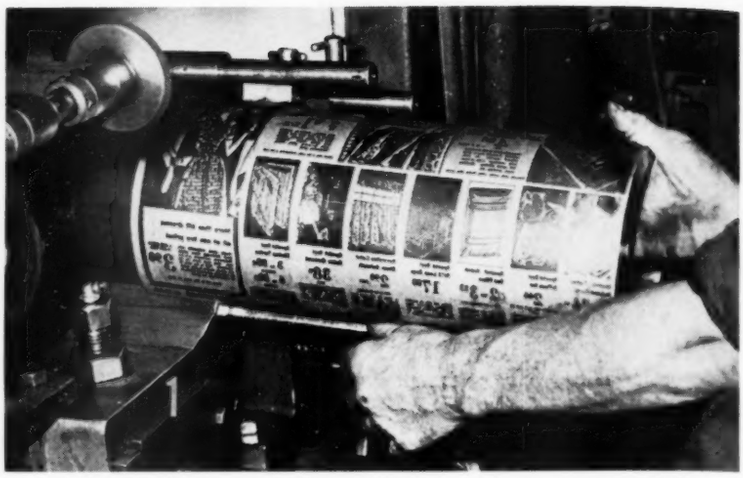
While stabbing a makeready sheet properly is a precise operation, it is not too difficult. The stabber should be held, when viewed from the cylinder circumference standpoint, on a radial line with the axis of the cylinder; also, at the same time it should be held at a 90 deg. angle when viewed widthwise of the cylinder.

Most important, the stabber should not be driven into the packing to a depth beyond the permament packing. To avoid driving the stabber too deep into the packing a new stabber tool has been announced recently. This new stabber was developed by James O. Austin, who has been associated with practical production in several Ohio printing plants for a considerable period of time.

The objective of the special design of the Austin stabber is not only to provide an easily and universally used stab mark for exact register but also to automatically prevent the cutting edge of the die penetrating beyond the permanent packing. Another objective is that the Austin stabber, due to its precise

(Continued on Page 62)

At La Salle (Ill.) *News-Tribune*, black ad proof has been offset on blank stereo plate (Fig. 1); parts to print in color are scribed and balance of black image is then routed off.



HOW TO HELP YOUR PRODUCTION THROUGH USING

Work Saving Techniques

By JOHN BARRON, *Production Mgr., LaSalle (Ill.)* News-Tribune*

MANY ideas for facilitating production or for making the individual's work easier have been adopted in printing plants of all kinds. To be worthy of adoption, an idea must be intended to have some effect on shortening production time as well as to permit doing more accurate work. In many cases, too, a given idea might be the means for eliminating costly work errors.

In one instance at the *News-Tribune*, an idea which has been developed enabled us to provide local advertisers with ROP spot color in their advertisements.

Originality is not claimed for all of the things mentioned here. However, a number of them in use in our plant are described below. Some of them may be useful to you.

SIMPLE SPOT COLOR—We have worked out a simple spot color process at the *News-Tribune*. Color is added mechanically to a black advertisement. For instance, in a women's clothing advertisement we want to print a garment in red. One of the nice things about this method is that color can be added to any page of the paper.

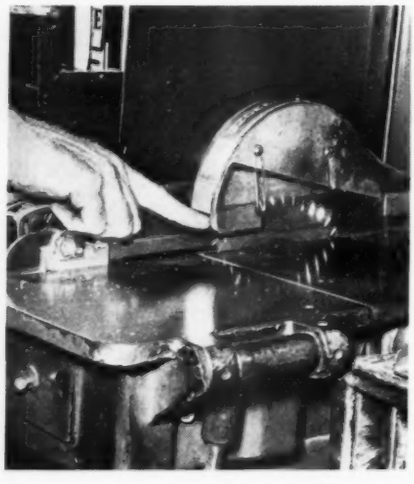
The first step is to take a page proof in regular black ink on the newspaper production press. On the proof, the parts to appear in color are selected. So little time is required to provide the color plate that you can wait for the press proof before the mechanical color separations are indicated.

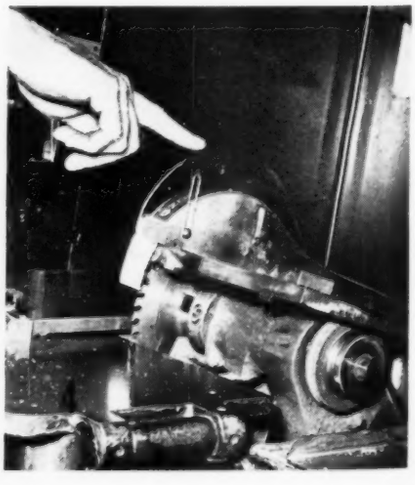
The second step consists of putting an unmolded mat in the stereotype plate casting box and casting a blank plate. The blank plate is removed from the box and is finished off in the regular ways. We timed this entire operation and found it took less than a half hour for one man from start to finish.

One of the advantages of this kind of color plate is that it is automati-

*Abstracted from illustrated address given before Great Lakes Mechanical Conference, Milwaukee, Jan. 1960.

Fig. 2—For the advertiser, the La Salle (Ill.) *News-Tribune* casts reverse display type from aluminum matrices. Fig. 3—To reduce chips flying toward left, clearance between saw workholder clamp and guard was reduced to just clear the clamp by dressing off guard shank stop at rear. Fig. 4—Self-adjusting plastic guard prevents chips flying to the right.





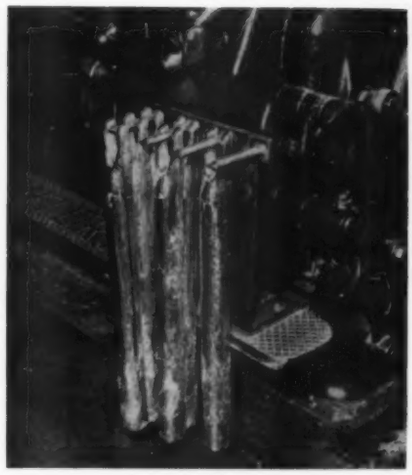
cally in register. The start in making the color plate is as follows: The black plate containing the advertisement is locked on the press cylinder. The press is turned over a couple times to offset the advertisement on the blanket cylinder of the press.

The black plate is removed from the cylinder and the blank plate (Fig. 1) is slid into place and locked in position. The press is turned over a couple more times to offset the printing from the blanket onto the blank plate. The plate bearing the offsetted image is removed from the cylinder.

The parts that are to appear in red on the blank plate are outlined with a scriber. The scribed plate is now put in the router and the non-printing or non-color areas are routed out. The plate is finished with a hand router by just smoothing the rough edges of the images.

The black plate is locked in its proper cylinder for the press run and the red plate is also locked in proper position on another cylinder. The press is started. Because the plates were in register during the offsetting operation on the blanket, they are in register when the printed papers come off the press. There is no delay in carding or adjusting the plates for register.

SPECIAL REVERSE MATRICES— For the advertiser who wants something different in his display ad we can accommodate him. For instance, if the copy calls for the words *Blanket Drycleaning Special,* in reverse lettering, we have a font of aluminum Ludlow style matrices (Fig. 2) made by Service Engravers. These matrices are composed and are cast on the Ludlow in the regular way. After surfacing the face with a resurfacer or emery block, we feel the result is equivalent in effect as if the line were reproduced photomechanically.



Permanent magnets have their uses in composing rooms (Fig. 5). Application here holds large copy sheets on line composing machine assembler entrance. In picture (Fig. 6) is pig rack on Intertype.

SAW GUARD MODIFICATION— We have adopted a couple of composing room saw ideas to prevent metal chips flying both from left and right sides of the saw.

In the left picture (Fig. 3) there was about $\frac{1}{4}$ in. clearance between the top of the workholder clamp and the front end of the guard. To close in the gap, a little of the guard shank stop was dressed off where the stop contacts the work table at the back of the guard. This closer position of the guard to the clamp greatly reduces flying chips at the left of the saw when the work table is in normal position.

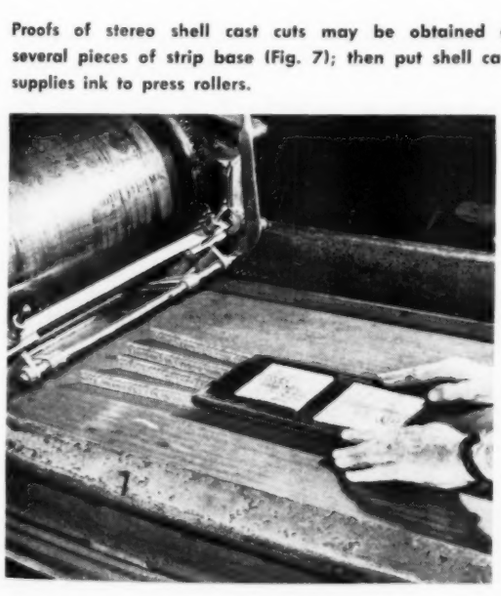
The flying metal chip problem at the right side is greater on a saw equipped with an adjustable work table. To overcome this problem a piece of $\frac{1}{8}$ in. plastic (Lucite or Plexiglass) makes a suitable anti-chip auxiliary guard (Fig. 4). When in position on the metal guard, the floating plastic piece moves up and down automatically with movement of the saw bed to prevent flying chips at the right of the saw.

To fashion the auxiliary guard, fasten a piece of paper to the plastic with rubber cement. Then while holding it against the regular metal guard draw an outline of the metal guard on the paper with a pencil. Then the plastic piece is cut to shape on the saw. To accommodate the two holding screws, slots are cut in the plastic for two 8x32 rnd. hd. screws. A regular steel washer is used under each screw head to provide substantial but free bearing.

MAGNETS HAVE USES—We use permanent magnets for several purposes in our plant. Among the uses are for holding copy on the camera copyboard, and for holders for tools near the places where the tools are used. On large pieces of ad copy, magnets hold the copy in convenient position on the assembler entrance covers of the ad machines (Fig. 5).

For hard-to-get-at places in line-composing machines we use a magnetized lamp holder which keeps the lamp just where the machinist would like to have it. Magnetized ash trays are held in stationary position on an ad frame or truck.

Proofs of stereo shell cast cuts may be obtained quickly by laying inverted galley on several pieces of strip base (Fig. 7); then put shell cast on galley. At (Fig. 8) modified oiler supplies ink to press rollers.



A wood strip and base storage cabinet is mounted alongside each saw (Fig. 9); top is level with saw table. Swing seats (Fig. 10) are provided hand compositors. Frame is constructed from 2 in pipe.

FEEDER PIG STORAGE — Convenient Margach type of pig storage racks were built by Johnny Schmitz (Fig. 6). The one shown in the illustration is supplied with a bracket which is fastened to the step of the linecomposing machine. Each of the studs is supplied with two flared projections to avoid possibility of pigs sliding off. Each stud supports three pigs for a total of 12 pigs in the rack. Since the pigs are elevated, it isn't necessary to stoop when taking one off to hang on the machine feeder.

QUICK SHELL CAST PROOFS— When a quick proof of a shell cast stereotype is needed for an ad layout or for composing room ad assembly purposes, here is a timesaver (Fig. 7).

In some plants, the shell casts are held until a galley is filled to conserve proofing operations. For this purpose keep a few pieces of low base strip material handy at the proof press. Lay a few pieces of the base on the press bed; then place a galley upside-down on the base. On the inverted galley lay the stereo shell cast and proof in the regular way. The same method can be used for 16 ga. engravings using 0.853 in. high base.

PROOF PRESS INK SUPPLY— Rather than use an ink knife or a linecomposing machine slug, we apply ink to the proof press inking mechanism with a modified 1 qt. oiler of the valve type (Fig. 8). The spout has been cut off not only to permit free flow of ink but also to facilitate handling.

MATERIAL STORAGE AT SAW— We built the strip and base material storage rack from wood for all of our composing room saws like the one shown in Fig. 9. The outside casing is of approximately 1 in. thick lumber. Outside cabinet dimensions are 18 in. by 18 in.

The partitions inset in rabbeted slots were cut from ¼ in. plywood and the cabinet tops are flush with the saw table. The racks are mounted on stout framework so the saw operator won't have to stoop to reach selected material.

SWING SEATS FOR WEARY—We installed swinging seats for hand compositors (Fig. 10). The frame is constructed from 2 in. pipe and fittings and swings out of the way when not in use. Strangely enough, they are not used as often as one might think. The compositors tell us the seats do afford relief occasionally. One of our own people made them.

TABLE I—ANGLE CHART

Degrees	Picas	Points	Degrees	Picas	Points
1	1	1¼	23	15	2
2	1	6½	24	15	10½
3	2	2½	25	16	6
4	2	10	26	17	4
5	3	6¾	27	18	2
6	4	1½	28	18	10
7	4	8¾	29	19	7½
8	5	4	30	20	5
9	5	11½	31	21	3
10	6	6	32	22	1
11	7	2½	33	22	11
12	7	10	34	23	8
13	8	5½	35	24	8
14	9	1¼	36	25	6
15	9	9	37	26	6
16	10	4½	38	27	5½
17	11	½	39	28	5
18	11	9½	40	29	4
19	12	4½	41	30	6
20	13	½	42	31	6
21	13	9	43	32	8
22	14	5½	44	33	9½
22½	14	9¾	45	35	—

ANGLE CUTTING CHART—In hot metal work, considerable effort is required to place type composition and engraved or stereo boxes at given angles in advertising and editorial work. A simplified method for determining angles quickly as well as a simplified method for cutting multiple pieces of base is used in our composing room.

For the sake of illustration, three pieces of 18 pt. Elrod low base can be fastened with Scotch tape to enable handling at the saw as one piece. Thus on a four sided angle the compositor is handling only four pieces instead of 12.

To find the angle indicated on the ad layout sheet, a protractor is used to find the degrees. For instance, we find the angle to be 12 deg. Now refer to the chart (Table I). Run down the first column to the figure 12; opposite the figure 12 the angle will be indicated as 7 picas and 10 pts. Then using the finger on the guide on which to rest the piece of taped base, the cut is made. In this way, each cut on the base is 12 deg.

The chart has been calculated with the length of the finger on the guide and any degree angle setting may be determined easily. The properly cut angled pieces are then dropped into place in the ad.

EMERGENCY DISPLAY FIGURES — In case of an emergency (and who doesn't experience them?) here's how we manufactured a display size figure 2 for ad composition.

The advertiser's copy calls for the price $22 for an item. The regular storage places for such material have been examined. But only one shell cast figure 2 is at hand. Here is an explanation of the method used to supply the needed extra figure with the Carlson finisher.

The shell cast figure 2 is laid on a large piece of low base on the proof press bed (to bring the figure up to type high), but *without the galley.* The figure is inked. Instead of proof paper, we lay a piece of tire patch

(*Continued on Page* 94)

Robert Allen, head reader, University of Toronto Press, records a manuscript on the Philips tape recorder. Later he will proofread the type listening to his recording.

Electronic Copy Holding Gives New Look to Proofreading Task

THE established technique of proofreading has been taught a new trick at the University of Toronto Press, Toronto, Can. There, with the aid of an office type tape recorder, proofreading and copy holding are done simultaneously by one employee.

Under the new system, the proofreader transcribes the original copy on tape. The recording is played back when it is time to proofread the type. Thus, the proofreader becomes his own copyholder.

Advantages claimed for the new system are reduction of total man hours, increased accuracy in communications between copyholder and proofreader, and decreased operator fatigue.

Two basic methods of proofreading have long prevailed. One method, the older of the two, is the comparative which involves direct comparison of proof with the manuscript by one person. Most technical and complex copy is proofread through the comparative method. The other proofreading technique involves reading in pairs—the copy holder reads the manuscript aloud to the proofreader who studies the type proof.

Each method of proofreading is said to have advantages over the other. Proofreading by comparison is said to acquaint the proofreader with the personality and nature of the original manuscript in such a way that he is more familiar with spellings of proper names, indents and style of the author. On the other hand, reading in pairs is said to be speedier and more accurate in the long run.

According to Robert Allen, head reader, University of Toronto Press, the new electronic copy holding method combines the advantages of both traditional methods, thus becoming more accurate and speedier than either one.

Tape Recorder Features

The tape recorder chosen for use at the University of Toronto Press was a Philips dictating machine. As a result of experimentation, a dictate-playback switch was inserted in the wiring of the machine in order to permit changeover of functions (from dictate to play and vice versa) without attaching or removing plugs.

The recording tape is carried in a plastic magazine and may be recorded on both edges. The magazine may be flopped at the end of the tape, which runs for 20 min., and dictation may be continued on the other edge. No rewinding is necessary before playback. Reference to break-off points in the manuscript and other advice can be dictated at the time of reading the original copy.

Allen stated that the electronic copy holding method should not be confined to composing rooms but should be adopted in publishing and editorial offices. He also said, "Copy holding is always a little monotonous. But with this system, listening to the copyholder read back is pure pleasure!" ⊕

ANPA-RI Officially Names New Mechanical Committee

W. R. Coddington, Detroit *Free Press*, has been officially appointed chairman of the Mechanical Committee, American Newspaper Publishers Assn. Research Institute, Inc., according to James S. Copley, Copley Press, Inc., La Jolla, Calif., president. Vice chairman is A. E. Rosene, St. Paul *Dispatch* and *Pioneer Press*.

Other committee members are: Bertram G. Burke, San Diego (Calif.) *Union* and *Tribune;* James S. Copley; Julian J. Eberle, Miami *News;* Henry Garland, Pittsburgh *Press;* David K. Gottlieb, Davenport (Ia.) *Democrat* and *Times;* George L. Green, Providence (R.I.) *Journal* and *Bulletin*.

James Harrison, Toronto (Can.) *Globe* and *Mail;* Harold R. Hoots, Decatur (Ill.) *Herald* and *Review;* George P. Kunz, South Bend (Ind.) *Tribune;* Willmot Lewis, Jr., Washington (D.C.) *Star;* George F. Marshall, Portland (Me.) *Press-Herald* and *Express;* J. C. McClung, Dallas *Times-Herald*.

Frank S. McKinney, Kansas City (Mo.) *Times* and *Star;* Donald Newhouse, Portland (Ore.) *Oregonian;* Jules L. Plangere, Asbury Park (N.J.) *Press;* Hy Shannon, Chicago *Sun-Times;* Donnell F. Shortell, St. Petersburg (Fla.) *Times*, and Harry Sloan, New York *Mirror*.

Plan West Coast Exhibition

An exhibition of printing machinery will be held in Los Angeles, Mar. 23, 1961. To be known as Westprint 61, the show will feature equipment for all phases of the printing industry. According to reports, more than 70 U. S. and foreign machinery firms already have reserved space for the show.

Pictured prior to the opening of the convention were: Penn R. Watson, Sr., president, Wm. J. Keller, Inc., Buffalo, N. Y., Raymond Blattenberger, Public Printer of the United States, and Stanley R. Rinehart, former president of the NAPL.

Representative of the large number of people interested in various exhibits was this crowd at Minnesota Mining & Mfg. Co.'s booth.

Left—Jerry Nikodem, cameraman, and John Nickodem, pressman, both of J & J Printing Co., Schiller Park, Ill., are given a paper sample by Robert Casey, Nekoosa-Edwards Paper Co. Center—Ronald Bakeman, line technician, Bendix Corporation, South Bend, Ind., listens as Burton Kaplan, Chemco Photoproducts Co., Inc. explains company's products. Right—G. Robert Brunhouse, Fairchild Graphic Equipment, Inc., shows color samples of separations to Don Moynihan, color camera foreman, Superior Engraving Co., Chicago.

Left—Norman Gulian, Ansco Div., General Aniline & Film Corp., talks to A. J. Swoboda, Jr., customer service representative, Colonial Press, Inc., Omaha, Neb. Center—Listening to an explanation on the operation of an automatic collator were: Homer G. Klene, executive vice president, National Bowling Council, Chicago; Robert T. Moeller, president, Moeller Printing Co., Cincinnati, and W. A. Hall, Addressograph-Multigraph Corp. Right—Interest in literature was displayed by Steve Andras, sales representative, Strathmore Printing Co., Aurora, Ill., Arthur Morse and Wayne Eklund, both printing buyers at Scripture Press, Wheatland, Ill.

By JOHN D. HEMMLER
Assistant Editor

Litho's Impact Felt at Record NAPL *Convention*

Newly-elected officers of the NAPL are, left to right: George G. Carnegie, vice president, Consolidated Lithographing Corp., Carle Place, L. I., N. Y., secretary; Milton Hudders, vice president, Recording & Statistical Corp., New York, vice president; J. Tom Morgan, president, Litho-Krome Co., Columbus, Ga., new president of NAPL; Walter E. Soderstrom, executive vice president, and William H. Glover, Sweeney Lithograph Co., Inc., Belleville, N. J., treasurer.

LITHOGRAPHY'S full impact on the printing world was felt last month when a record crowd of 5500 turned out to attend the 28th convention of the National Assn. of Photo-Lithographers at the Conrad Hilton Hotel in Chicago.

Leaving little doubt that it was the most successful meeting in NAPL's history, the convention also served to show in a dramatic manner the popularity and acceptance of the lithographic process.

The convention planners, headed by NAPL Pres. Stanley R. Rinehart and Exec. Vice Pres. Walter Soderstrom, offered two outstanding attractions—an equipment show and educational discussions.

The exhibit areas, which at times were jam-packed with visitors, reached the proportions of a small scale Graphic Arts exposition. They included live demonstrations of some of the latest developments in the litho field (see Equipment and Supplies section, this issue) and complete displays of camera, platemaking and press equipment. The show, which was kept open for four days on a 12 hr. daily schedule, continued to attract litho printers and platemakers until its closing time.

Participants in the business-technical discussions were rewarded by full audiences at each session. Interest ran high in the areas covered by these speakers, especially in the meeting devoted to lithographic quality control (see story, page 00). The technical side of the program included interesting presentations on new developments in plates, production control, and an all-day clinic on difficult shop problems. Under the heading of business management, the NAPL members were offered information on finances, guides to growth and decision making, and costs.

Another convention highlight was the election of a new NAPL president, J. Tom Morgan. He is president of Litho-Krome Co., Columbus, Ga., and succeeds Stanley R. Rinehart of E. I. du Pont de Nemours & Co., Wilmington, Del. (Other new NAPL officers are pictured on this page.)

It was announced that next year's convention would be held at Hotel Commodore, New York City, Sept. 19-22.

Competition and Hourly Costs

Opening the financial clinic, Frank R. Turner, Jr., NAPL cost accountant, made the observation that as competition gets tigher lithographers tend to think more about hourly costs.

In the computing of direct labor costs, Turner suggested including: Present hourly wages paid, total anticipated straight time payroll hours for the year ahead, complements of help needed for various presses, and the inclusion of vacations, paid holidays and other fringe costs.

When computing costs of light, heat and power, Turner emphasized the necessity of estimating the percentage of time machinery operates. "In the case of presses," he said, "some time is required for washup or makereadys. It is obvious that the number of press hours the equipment may be in actual operation will be somewhat less than the normal total productive hours for each cost center."

Commenting on rates of depreciation used in budgeted hourly rates, Turner said: "We often find lith-

Lyle Landrum, Kimberly-Clark Corp., discusses litho products with Glenn W. Jones, printing department manager, Good News Broadcasting Assn., Inc., Lincoln, Neb.

Small Lithographer Should Set Pace for Print Quality

THE role of the small lithographer in competition with large printers should be in the field of quality advised J. Tom Morgan, president, Litho-Krome Co., Columbus, Ga., speaking at the National Assn. of Photo-Lithographers convention last month in Chicago. Morgan, who was also elevated to the presidency of NAPL, indicated the trend in the Graphic Arts today is towards mergers, acquisitions or consolidations.

Because of these developments, many small lithographers begin to question whether they can successfully compete since production capacity and financial strength of large plants far exceeds their own. Morgan asked: "Will the clamour for webfed presses and larger multicolor sheetfed presses make for an atmosphere in which quality of product will become secondary?"

Continuing, Morgan commented: "It is in the smaller shop that quality has its best chance to survive, to prosper and to grow. . . . Where the larger plants can lead the field in mass production, the small shop can establish the standard in technical excellence. In fact, the small shop must set this standard if it is to be set at all. For quality is attained more by a philosophy of the skilled craftsman than it is by the speed or size of the equipment which he uses."

He then indicated that many lithographers should achieve excellence in black and white printing instead of attempting color work. As an example, Morgan cited his own company, indicating it had developed a method of obtaining results in black and white which retain all the qualities of the original. This is the result of a new approach to the double impression technique and involves two black plates on a two color press. The two plates, he explained are distinctly different; one carries the low key tone values while the other carries high key tones.

Color and Masking

In the field of color reproduction, Morgan spoke despairingly of the large numbers of masking systems which tend to confuse, since each transparency creates its own individual problems.

"About color process reproduction from the color transparency—there is a host of informative literature and instruction books on how to do it. They tell us to use a single mask, or a double mask, or a triple mask system; or better still, a double overlay mask. Or, still better, the latest masking craze is the camera back masking method. Some say, 'Make a highlight premask and build into each separation.' Others say, 'Make three highlight masks and use separately with each nega-

Members of the NAPL quality control panel consisted of, left to right: J. Tom Morgan, president, Litho-Krome Co., and new president of NAPL, Columbus, Ga.; Robert E. Wood, quality manager, Western Printing and Lithographing Co., Racine, Wis.; George G. Carnegie, vice president, Consolidated Lithographing Co., Carle Place, L. I., N. Y.; Russell K. Johnson, assistant superintendent, E. I. du Pont de Nemours & Co., Inc., Philadelphia; Louis D. Pollner, supervisor, quality control, Consolidated Lithographing Corp.

ographers concerned over how much depreciation they can charge into their budgeted hourly rates. Depreciation from a cost viewpoint is one thing, and depreciation from a tax viewpoint is an entirely different matter." Continuing, he indicated the government restricts the amount of depreciation written off on a tax return, but it is not concerned with percentages charged in hourly cost rates. Thus, in setting up budgeted hourly costs, as much or as little depreciation can be written off.

In plants operating web offset presses spoilage is a large factor, Turner said. In order to determine adequate figures for these items, analysis of spoilage records and floor areas necessary for paper storage are required for general factory expense distribution.

The cost accountant indicated many lithographers still use the "two or three times labor" rule of thumb to guess at total costs. "In this day and age of strong and new competition . . . lithographers should be more exacting in arriving at competitive rates, and the methods used to secure these tools of management."

He urged that accurate monthly records and analyses of chargeable and nonchargeable hours for each department must be kept in order to charge sound standard cost rates. He warned against overestimation of chargeable hours, mentioning various factors such as breakdowns, production delays, lack of business, etc., which will lower production.

In closing, Turner mentioned five factors of sound costing which are:

(*Continued on Page 72*)

Among the Record Crowds Attracted to the Chicago NAPL Convention

(All names read from left to right)

1—Four members of the technical session panel were: William J. Stevens, district manager, Miehle Company; Free M. Truesdale, quality control manager, Nekoosa-Edwards Paper Co.; Leonard E. Dama, ink department superintendent, I. S. Berlin Press, and Alfred Lackner, press superintendent, Newman Rudolph Printing Co.

2—Financial clinic members consisted of, left to right: K. L. Warren, treasurer, Package Products Co., Inc., Charlotte, N. C.; Milton Hudders, vice president, Recording & Statistical Corp., New York; Frank R. Turner, Jr., cost accountant, NAPL; Thomas R. Johnson, controller, W. A. Krueger Co., Brookfield, Wis.

3—Discussing various aspects of the convention were: Anthony Sears, assistant professor, Department of Printing, Rochester Institute of Technology, Rochester, N. Y.; Ted Sambor, foreman, Model Photo Dept., Todd Company, Rochester, N. Y., and Bob Madden, plant manager, Rider & Dickerson, Chicago.

4—Mel Mark, Durst (USA) Inc., explains use of vertical color camera to James W. Bradley, president, Litho Color Corp., Atlanta, Ga., at the Durst booth in the convention exhibit area.

5—Peter G. Langley, secretary, Cantwell Printing Co., Madison, Wis., watches demonstration of new lineup table by Howard Nack, Hamilton Manufacturing Co.

6—Explanation of Multilith features is given by Gerald A. Real, Addressograph-Multigraph Corp., to Don Lockhart, office manager, Silver Lith Corp., Washington, D. C.

7—Thomas P. Mahoney, executive vice president, American Offset Corp., Chicago, and William D. Gable, director of graphic arts, American Greetings Corp., Cleveland are pictured in the exhibit area.

tive respectively.' There is a lot of talk about range, gamma, fogging and flashing. There exists as many systems as there are writers."

Morgan ended his comments with a narrated film of operations which insure quality at the Litho-Krome plant.

Robert E. Wood, quality manager, Western Printing and Lithographing Co., Racine, Wis., generally confined his remarks to quality control as practiced at Western. He first attempted to define the terms quality and control, and to answer the questions of why control is necessary over quality and the level at which quality should be controlled.

Wood's definition of quality is: ". . . that characteristic of an item which makes it appealing and desirable to possess." He said this can be due to only three items—design, materials or workmanship.

"Control," he continued, "is accomplished by what the engineer calls a control loop, which requires the following: (1) A means of error detection. (2) A means of error correction. (3) Feedback." Of the three, lack of adequate feedback is the cause of most control problems. In the quality control loop, inspection of the material is the error detector. The error corrector is provided if the means and capability for adjustment of the process is

(Continued on Page 71)

● ***In discussing new processes and developments, Buffalo convention speakers advise cooperative action and***

URGE PHOTOENGRAVERS TO

Refine Cont

IN addition to considering adoption of new technical developments in the industry, photoengravers have become increasingly aware of the necessity for accentuating quality control in their work.

These two themes dominated the speaking program of the 1960 convention of the American Photoengravers Assn. held at the Statler Hilton hotel, Buffalo, N. Y., on Oct. 9-12. More than 900 people attended.

A highlight of the program was the address delivered by Joseph Chanko, general manager, The Conde Nast Press, Greenwich, Conn. (to appear in Dec. issue). Also of high interest was the panel presentation by Charles E. Wortman, product manager, Harris-Seybold Co., on progress being made with the wrap-around plate (see story on page 50).

A refreshing phase of the meeting was that practically all of the speakers voluntarily mentioned imperfections still existing in their new processes or products. The audience in each instance was assured that every effort is being made to eliminate the unwanted variables.

The 1961 convention will be held at Pittsburgh Hilton hotel, in Pittsburgh on Oct. 23-25.

The entire board of officers and directors were re-elected to serve the association for another year with the exception of one director.

Equipment-Supplies Exhibitors

A total of 40 exhibiting companies occupied 63 booths. Some live working displays were kept busy throughout convention days as were representatives of companies exhibiting the latest in supplies of all kinds. The exhibits were well attended.

Challenge of Future

The challenge of the future in the printing industry with respect to the printer and photoengraver was discussed by Max B. E. Clarkson. He is president of Graphic Controls Corp., Buffalo. The average printer, he said, is becoming less and less self-dependent. The entry into the industry of the smaller lithographers who are able to photograph their own copy has made it necessary for many printers to work with the photoengraver, who in turn must depend upon their competitive position.

The demand by the printer for faster and larger presses has created demands upon the photoengraver to produce larger and larger plates. Development of plates which can be placed on the press without makeready has become essential.

The challenge to the printer and photoengraver is to cooperate with research and development or be left behind. The printing industry is becoming more and more a manufacturing industry. The great need is to produce products of uniformly high quality at less cost. Progress in this direction, however, is dependent upon research.

In many general areas, other than in the printing industry, changes are taking place. To illustrate, he referred to groups of citizens, employee attitudes with employers, and bank relationships with customers. To keep in tune with these trends the printer must take collective action. No one can face these challenges alone. The great challenge is to recognize the changes and what they are doing to the industry. Collective action by and between the American Photoengravers Assn. and Printing Industry of America will improve communications and enable both the photoengraver and the printer to work together.

Governor Arthur B. Langlie, president, McCall Corporation, presented an inspirational address on *New Vitality Through the Printed Word.* He asserted (with respect to the printed word) that "our national heritage is—through a national preoccupation with material wealth—in danger of being squandered."

He pointed out that one way to

All but one of these officers and directors of the American Photoengravers Assn. were re-elected to serve for a second term. Seated, from left to right: W. K. James, Philadelphia, secretary-treasurer; E. Bartlett Brooks, Dayton, O., president; Harry E. Collins, Chicago, first vice president. Standing are executive committee members: Fred J. Gaertner, Minneapolis; Richard W. Watkins, St. Louis; Robert M. Birdseye, Detroit; Louis D. Barbieri, New York City; James E. Goerz, Los Angeles; G. P. Klauminzer, Cleveland; R. C. Walker (past president), Tulsa, Okla., and Robert S. Swan, Bridgeport, Conn.

By MacD. SINCLAIR
Consulting Editor

...t rol Techniques

pick up a thought or an idea is through the spoken word—on radio, television or in speeches—but the spoken word soon dies. . . . "All that you and I have learned that has not come from the reading of books, and that we have not put down on paper for someone else to read, will die with us," he added.

"Our greatest stake as Americans is in promoting the value of reading. For only through reading can we, as a nation, acquire the true understanding of the desires and ambitions of other peoples," he concluded.

Henry Hotz, Jr., assistant to superintendent in charge of quality control, Curtis Publishing Co., Philadelphia, presented an informative talk on quality control of paper, ink and photoengravings. Among other procedures, the Curtis organization exercises quality control from the time photoengravings are received until the printed magazines are ready for the reader. Hotz commented that a tolerance of less than 0.001 in. in a 0.049 in. thick plate is acceptable to Curtis.

One of Hotz's closing comments was that Curtis, in conjunction with an electric eye color register control, prints publications at a web speed of 2000 f.p.m. on its Cottrell YY presses.

Cooperation of the Curtis Publishing Co. with photoengravers was expressed by John G. Meehla. He is assistant manager of Curtis' Engraving Div. The speaker explained Curtis buys all editorial engravings appearing in its publications. Over 40,000 advertising engravings are received yearly and are analyzed, inspected and prepared for reproduction in his company's plants.

Meehla outlined the cooperative production plan practiced in the plants of the Curtis editorial-engraving suppliers.

Immediately after a job is put into production in the plant, a conference is held by the key production men to determine the best procedure for handling the job throughout its processing. Included are the making of separation negatives, masking, under color removal and any factor that would influence quality of reproduction.

The plan for processing each job is recorded and copies are distributed to all men concerned, so that no controversy, confusion or change of mind can disrupt the preplanned procedure.

"If any change is to be made after the first progressive proofing,

Engravers Convention Pictorial

(All names read from left to right)

1—Joseph G. Rocha, Colorado Engraving Co., Denver; Al Kareth, Bidgeport Engravers Supply Co.; Henry P. Korn, Henry P. Korn Associated, Inc.

2—John E. Rees, Rolled Plate Metal Co.; A. H. (Bert) Candy, A. H. Candy & Co., Ltd., Auckland, New Zealand; D. A. Schimenti, Rolled Plate Metal Co.

3—Chesley F. Carlson, Chesley F. Carlson Co., and A. B. Fry, Dow Metal Products Co.

4—Clarence Rinne, Syracuse (N. Y.) *Herald-Journal*; William Latimer, Latimer, Ltd., Toronto (Ont.) Can.; William A. Penney, Jr., Imperial Type Metal Co.

5—Wilfrid C. Thomas, J. W. Clement Co., Buffalo, N. Y.; William Koch, HCM Corp.

all of those concerned will be made aware of the change," Meehla explained.

The first progressive proofs, he said, will be of great help to the photographer, etcher and other craftsmen, if they are correlated and re-analyzed with the final OK proof of the job. In particular, the photographer will be able to evaluate his continuous tone negatives, positives and screen negatives to determine what measures he should have taken to achieve a closer match of the copy on the first proofing.

Praises Powderless Etch

Meehla was high in his praise of powderless copper etching. "The dot structure," he said, "has almost perpendicular sides . . . etching and deepening takes about one-twentieth the time consumed by the conventional method. . . . The lateral etch is negligible. This is the key to maximum use of photographic color separation."

Continuing, Meehla said: "Our recommendation would be to establish definitely the dot size of the highlight areas that can be retained in the powderless etching operation over and over again. The measurement of these highlight areas should be done with a calibrated eyepiece on the depth microscope which will enable determination of the correct dot size.

"Before the plates are exposed onto the copper, a microscopic reading of all screen negatives should be made in the highlight and middletone areas to see whether they meet the established required dot size. If there is an error, it is much easier and less expensive at this point to remake the screen negatives than to remake the copper plates.

"There is another important factor—the scumming out of the plate before etching. This must be done carefully so the plate does not begin to etch in the scumming operation. Excessive scumming out will expose the side wall of the dot to the corrosive action of the acid before the additive can protect it."

Another point mentioned by Meehla was with respect to completion of the etching. After the plates have been cleaned in the hypo bath, he recommended giving them a 2 sec. bite in a convention-

(Continued on Page 65)

'Press Isn't Worth a Darn Without Properly Made Plate'

ONE of the program features of the American Photoengravers convention in Buffalo, N. Y., last month was the panel presentation devoted to the wrap-around plate and press. The presentation was titled *Our First Year in the Field with Wrap-around.*

Panel moderator was Charles E. Wortman, wrap-around letterpress product manager, Harris-Seybold Co. He was assisted by Charles C. Harris, manager, Wrap-around Technical Center of the same company and E. W. Thomas, vice president, Speaker-Hines & Thomas, Inc., Lansing, Mich.

One of the informative comments from the speakers' platform was that "Without a properly prepared plate the wrap-around press isn't worth a darn."

Wortman reported that his company has installed a number of the 23 in. by 30 in. wrap-around direct printing letterpresses in various parts of the country. He explained that during the past year an all-out effort has been made by the company's Research Technical Center to develop the best method and techniques to be used in making plates for the press. This is the primary reason sales of the press have not been pushed.

He also explained that sources of plate supply for the press was a big item in successful use of the press.

One of the planners and manager of the Buffalo convention of the American Photoengravers Assn. was Frank J. Schreiber, association executive secretary.

Also, considerable educational effort has been made. The Center has published a procedure for making plates. It is available to wrap-around platemakers.

Doesn't Want To Make Plates

Rather emphatically, Wortman said his company doesn't want to engage in the wrap-around platemaking business. Up to the present, the company has felt it expedient to do so because of scarcity of platemakers.

In discussing the plate itself, Wortman explained that the Research Center has worked primarily with 0.025 in. and 0.032 in. thick zinc plates. Etching rate is 0.002 in. per min. Etching depths up to 0.010 in. in line work are customary for wrap-around plates.

Wortman reported that 14 single color wrap-around presses are in operation in New York and seven other states. He also announced his firm has scheduled manufacture of the press at the rate of two per month for the coming year.

The presses are being used for printing publications, labels, advertising bulletins, carton wrappers, strip printing, imprinting and for foil products.

According to the speaker, it is highly important to have in the negative what is to be reproduced in the plate itself. He urged photoengraving platemakers to get into the act and prepare themselves for production of wrap-around plates.

40% to 60% Savings

Wortman said that after a year's experience in platemaking and production printing, it has been determined that savings ranging from 40% to 60% have been determined. The figures he presented are in comparison with flatbed letterpress.

Wrap-around platemaking costs, he said, are constant after regular procedures have been established up to the time the plates are ready to put on the press.

Reported production press speeds

(Continued on Page 62)

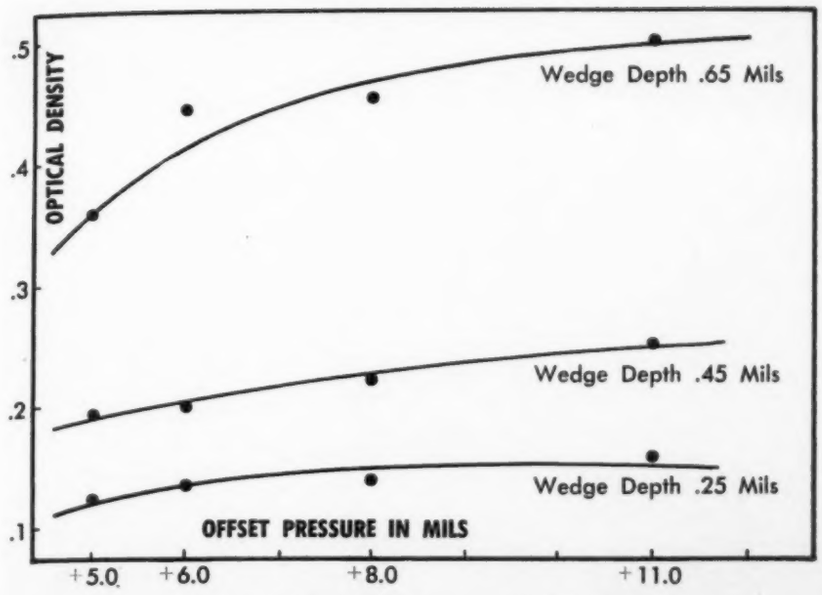


TABLE I—Influence of offset pressure on ink offset.

Inkmakers Continue Work on Color Offset and Black Ruboff

By HERBERT SPRAKER, *Tech. Service Mgr. Ink Div., J. M. Huber Corp.**

WITH the growth of newspaper ROP color printing and the running of more three and four color full page ads, one of the problems plaguing the industry concerns the transfer of ink from a printed page directly to the adjacent page. This is commonly referred to as *offset*.

During the past year Huber laboratories have been doing development work and studies particularly on the problem of offset in ROP color printing. Offset, as we all know, occurs immediately after printing at certain pressure points: (1) Folder, (2) Conveyor system, and (3) Bundler.

From observations and studies, we have determined that tension at the folder causes a great degree of offset but feel that this can be somewhat controlled in the pressroom. An increase in ink offset also occurs in the conveyor system. Offset increases only slightly at the bundler.

We know that vehicle release in the ink, or the speed at which the vehicle leaves the pigment on the sheet in a dry state, is an important factor in offset. This is due to the time involved between the printing of the papers and their arrival at the bundler. In order to eliminate this offset potential, it is necessary to use an ink that will set almost immediately after it leaves the printing press. Here we are talking in terms of from 1 to 4 sec. after printing, depending on the color, length of lead, and printing speed.

Testing Instrumentation

Since time is such an important factor in offset, the first step in our development work was to establish a laboratory method for measuring the amount of offset within this normal time. This has been done by utilizing the Vandercook proof press, the printing wedge, a special timer, and the Photovolt reflectance meter. The printing wedge is a block of hardened steel 9½ in. long and 4½ in. wide. Its height varies uniformly from 0.918 in. (type high) at one end to 0.9186 in. at the other end.

Two channels, 6 in. long by 1½ in. wide, are ground into the face of the wedge. The depth of each channel varies from 0 at one end to 0.6 mil at the other. This method of printing rapidly a varying but continuous ink film was developed by the National Printing Ink Research Institute at Lehigh University.

This test may be used to determine the degree of offset between inks at varying printing pressures, offset pressures, time and film thicknesses—all of which are the variables that affect offset. With our tests we have been able to dupli-

(*Continued on Page 92*)

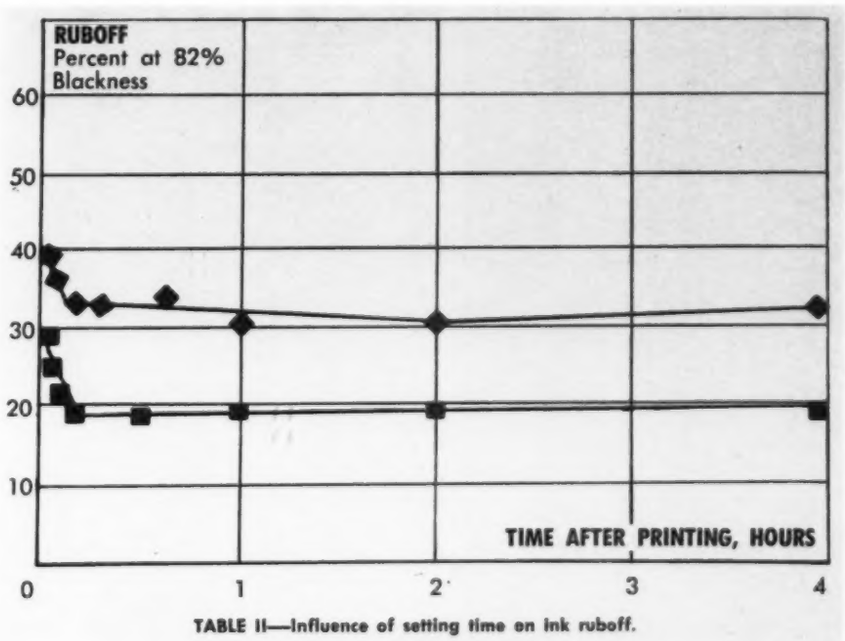


TABLE II—Influence of setting time on ink ruboff.

*From an address presented at the Eastern Div. SNPA Mechanical Conference, Birmingham, Ala., August 1960.

Which new Goss Headliner is ri

is right for you?

Take a closer look at these two new Goss Headliner® presses—surprises are in store.

You expected the *Headliner Mark II* to be something special, but it's even more. Here's why: New faster color change—faster than you can lead a web. New balanced drive. New centralized controls. New bonus space for the pressman. Easier, simpler, quieter operation. Tremendous built-in reserves. And that's just the start. 70,000 p.p.h.

The renowned *Headliner Mark I*, long popular with leading publishers, now offers many improvements in added efficiency and economies. New simplified controls. New fountain and ink-feeding arrangement with Micrometric feed roller and semi-automatic roller sockets. New, faster reversing . . . smoother operation. All important features worth looking into. 60,000 p.p.h.

Let's evaluate whether it's time for new Goss Headliners, and which one will offer the greatest profit-making possibilities for *your* operation—at lowest operating cost.

Get in touch with Goss.

***3** out of **4** American daily newspapers are printed on Goss presses*

THE GOSS COMPANY
CHICAGO 50, ILLINOIS

Specialists in newspaper, magazine and roto presses

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.
The leader in graphic arts . . . engineering, service and manufacturing . . . industry-wide and world-wide

Final part in series tells that printing quality is governed by halftone positives, inks, ink film thickness and papers.

Factors that Control
PLEASING LITHO COLOR

How to Obtain Maximum Appearance

By GYAN P. MADAN
Color Analyst

IN last month's Part II of this series on *Pleasing Color* we explained the techniques employed in arriving at the proper densities of the separation negatives from which the color plates will be produced. It was also stressed that the theoretically calculated values produce true results in practice only if a proper and standardized procedure is followed throughout the complete color reproduction process.

To obtain the best values from the limited amount of color correction provided by a single mask, our final aim is the control and standardization, as accurately as possible, of all the factors governing quality and sharp appearance of the final reproduction. These factors include the role played by halftone positives, the process inks, ink film thickness, printing process and the paper. We will discuss these factors briefly in this Part III which is the last of the series.

For a satisfactory color reproduction, the correctness of halfone positives as outlined in Part II, is appraised after carefully checking halftone dot quality in the screened image as well as strength of each color for the reproduction of neutral values.

Quality of Halftone Dots

Dots produced in the screened image of the halftone positives should be sharp, dense and hard with distinct edges. Generally, because of underdevelopment or nonstandardized procedure in development, dots in the highlights and middletones of halftone positives lack in density. They do not hold true tonal requirements in the etching and exposing steps. Prints produced from such halftone positives are usually weak in appearance and alter the complete color balance of the reproduction. Any of the three halftone positives, if lacking in dot density, should be remade with proper control of temperature and adjustment in developing time.

Correct balance in the *neutral values* of cyan, magenta and yellow halftone positives is essential for satisfactory color reproduction. Neutral values represent the area where amounts of three color process inks, when printed on top of each other, produce a neutral color or gray. To determine the halftone balance, a neutral region could either be selected in the halftone positives from the original transparency, or the values in the gray scale, which is the real reference point for the entire picture, could be used.

Halftone balance is determined by either of the following methods: (1) By comparing the values in the gray scale with any available color guide or color chart used as a standard, or (2) By graphical representation of dot area percentage of halftone positives and the density of the negatives from which they have been made.

TABLE VI

	Density Readings		
	Red filter	Green filter	Blue filter
Printed color	(No. 25)	(No. 61)	(No. 47B)
Cyan	1.10	0.32	0.20
Magenta	0.09	1.00	0.64
Yellow	0.02	0.06	0.89
Red	0.12	1.04	1.10
Green	1.12	0.43	0.93
Blue	0.98	1.14	0.68
3 Color	1.10	1.14	1.12

Color Chart Reference Method

An LTF color chart (Fig. 5) or any other color guide available on the market can be selected for this purpose. Positives for making the LTF color chart in your own plant, using your own set of process inks and paper, are available from Lithographic Technical Foundation at reasonable cost. The color chart, if prepared from these positives, can now be used as a standard. The area shown with three color overlap of equal dot sizes in this chart is a valuable tool for checking the

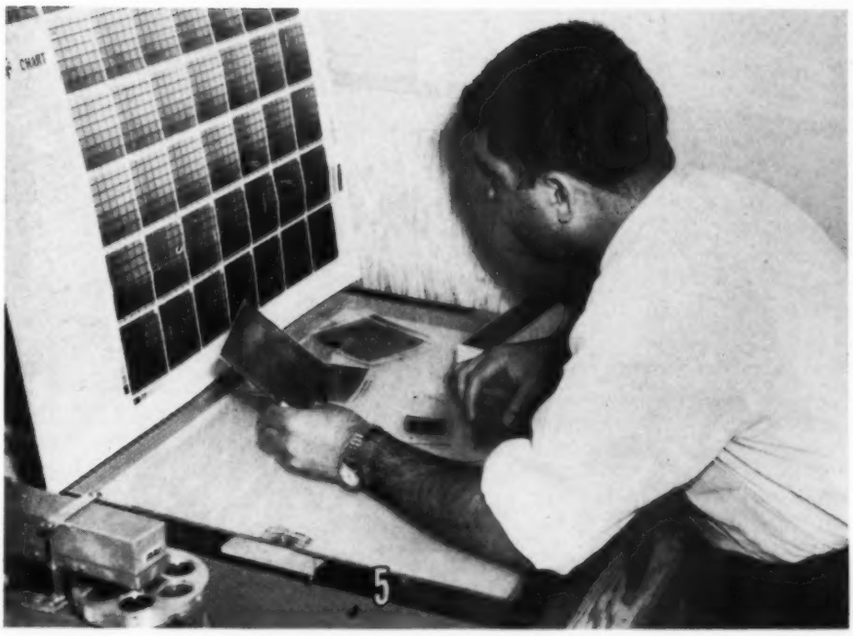
gray balance in the three halftone positives. The color chart can also be used for comparing the dot values in other areas of the halftone positives with the original transparency. This comparison gives a visual picture of what has been tried to be accomplished from the three halftone positives prior to the platemaking and proofing.

Graphic Representation Method

By this method the balance between the three halftone positives is checked by plotting the dot area percentage in each step of the gray scale of the halftone positives against the density of the corresponding steps of the gray scale in the continuous tone separation negatives. As explained previously, all the three continuous tone negatives were balanced at a density range of 1.40. Therefore, the three curves obtained from the dot area relationship must match each other in order to show perfect balance. (See Fig. 8.) In case the three curves do not show perfect balance but indicate a difference in contrast, it will be necessary to go back to the making of the halftone positives and to adjust the contrast with the previously explained CC Filter technique.

After having made sure that the halftone positives are in correct balance, the stripping and platemaking steps are completed. At the stripping stage, two blocks, one of solid and the other of 70% tint, are so incorporated in the three positives that, when combined together in the three color proof, they will give the effect as shown in Fig. 9. The reason for including these blocks is discussed later. Exposure in platemaking is standardized with the LTF sensitivity guide.

Three halftone positives, when printed on top of each other, will



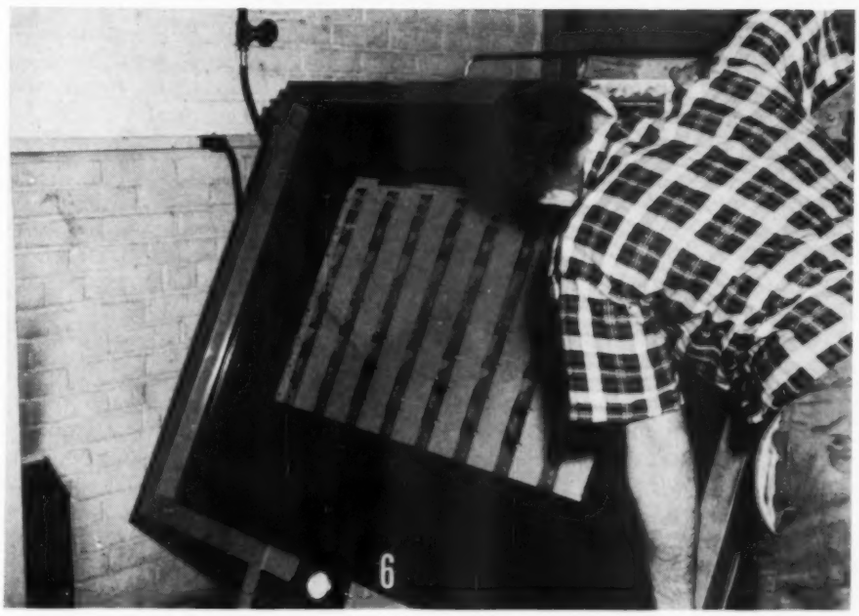


Fig. 5—LTF Color Chart is used for comparing color balance in halftone positives.

Fig. 6—The operator is checking contact between the plate and the halftone positives for good results. Standardization of exposure in platemaking is maintained with LTF Sensitivity Guide.

Fig. 7—A Photovolt Reflection Densitometer is used to check the ink film thickness level and uniformity of the printed sheet. Blocks of solid and 70% tint serve as standard for the entire picture in this checkup.

MAGENTA	MAGENTA ON YELLOW (RED)	YELLOW
CYAN ON MAGENTA (BLUE)	3-COLOR OVERLAPPED PRINT (Cyan + Magenta + Yellow = Black)	CYAN ON YELLOW (GREEN)
CYAN		

Fig. 8—Graphic representation of color balance.

produce different results with different sets of inks, paper and methods of printing. It is important that each individual plant should carefully select a balanced set of inks and paper, and use it as a standard for good reproduction.

Inks selected for this experiment were of quickset type, with high pigment strength and hue characteristics. The magenta ink had less red and the cyan ink more green. Test sheets of pleasing color were run on a web offset press using uncoated offset paper.

The next step is to check the ink film thickness level and the uniformity of the printed sheet. Blocks of solid and 70% tint served as standard for the entire picture in this checkup. The tint block was added to control the shadow tones from filling in and to maintain even impression. The solid ink densities were read on a Photovolt Reflection Densitometer (Fig. 7) using Kodak Wratten Nos. 47B, 61 and 25 filters. The readings recorded are shown in Table VI.

By following the practice of recording densitometric readings as in Table VI, it becomes possible to set densitometric or numerical standards for each color ink. These data are also of valuable help in checking the ink trapping conditions of two and three color overlapped solids. Heavier layers of ink film thickness generally result in printing troubles which outweigh the gains obtained from masking or ink purity characteristics. It can be understood that satisfactory trapping conditions are essential to obtaining faithful reproductions.

The detailed procedure of measuring trapping is published in The LTF Color Chart, Bulletin No. 320, and can be obtained from the Lithographic Technical Foundation Inc., 131 East 39th St., New York 16, N. Y.

The normal trapping range of magenta and cyan on yellow should be within 90 and 110%. Undertrapping usually takes place if a stiff ink is printed on wet-soft ink. In other words, it is the tack or body relationship of two inks, used in printing on top of each other, which influences the trapping. Sometimes an emulsification of ink with fountain solution also results in poor trapping. Changes in tack relationship and control of proper ink-water balance on press can improve the trapping.

Lastly, the densitometric data is used to check the neutral effect obtained from the overlapped printing of the cyan, magenta, and yellow solids. If your data table shows that the densities of the three color overlapped print taken through three color separation filters are in close match, then there is reasonable evidence for the satisfactory reproduction quality of neutral values, *i.e.*, the entire picture in full and pleasing color.

In preparing this series of articles on *Pleasing Color*, the *Kodak Bulletin for the Graphic Arts*, No. 17, and published by Kodak Limited, London, England, was used as a reference.

(Concluded)

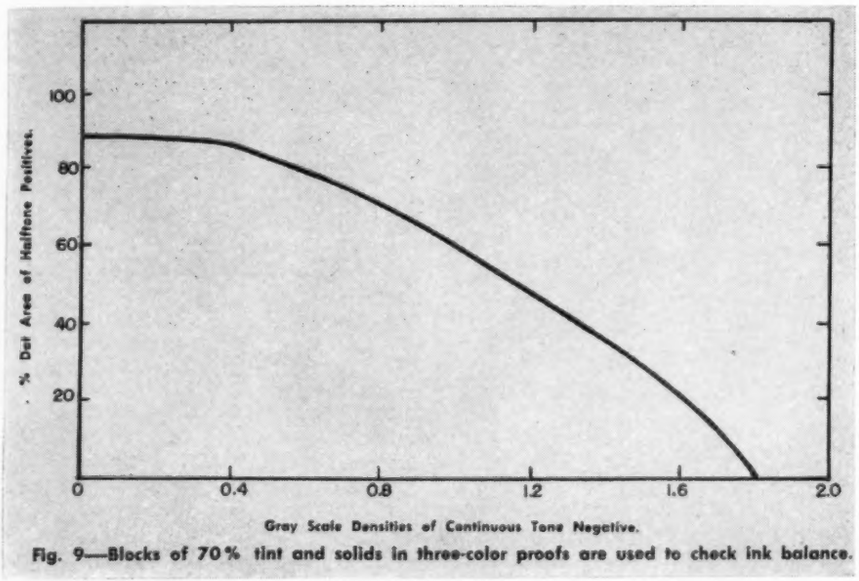


Fig. 9—Blocks of 70% tint and solids in three-color proofs are used to check ink balance.

Electrotypers Announce Self-Advertising Winners

Winners of the third annual self-advertising contest of the International Assn. of Electrotypers and Stereotypers were announced last month at the association's convention in Mexico City, Mexico.

Winners in the plant classification of 26 or more employees were: First place, Service Electrotype Co., Pittsburgh; second place, Quality Engraving & Electrotype Co., Cincinnati.

In the plant classification of 25 employees or less, winners were: First place, Standard Electrotype Co., Pittsburgh; second place, City Electrotype Co., Detroit.

The Individual Specimen award was won by Rapid, Grip & Batten, Ltd., Toronto, Can. Honorable mentions in that category were presented to Dahl & Curry, St. Paul; Johnson Mat & Electrotype Co., San Francisco, and Plastotype, Ltd., London, England.

Film Shows Dycril Processing

A film showing the process for making letterpress printing plates from Du Pont's Dycril photopolymer plates has been made available to Graphic Arts groups by E. I. du Pont de Nemours & Co. The motion picture is in color and runs for 21 min. Requests for the film should be sent to the Photo Products Dept., E. I. du Pont de Nemours & Co., Wilmington 98, Del.

Use the convenient card in this issue for Reader Service information.

Through electronic response, the Vario-Klischograph engraves various types of printing plates.

Machine Separates Color While It Also Engraves Plates

THE Washington (D. C.) *Post* is installing a number of production innovations in the multi-million dollar addition to its present plant. According to John W. Sweeterman, vice president and general manager, one of the innovations is installation of a Vario-Klischograph plate engraver.

This equipment is being used on a regular basis for full color photographic reproduction in the *Post's* Thursday Food Section, color fashion illustrations and the Sunday TV Week and Show sections.

The Vario-Klischograph is an electronic machine that engraves full color plates as well as halftone and line cuts automatically. It can also be used to produce combination plates.

The machine works directly from a color transparency or color print in doing automatic color separation work.

It engraves magnesium, plastic, aluminum, copper, zinc or stereotype plate material.

Plate Production Rates

The *Post* reports that the machine engraves at the rate of 3.5 sq. in. per min., takes 25 min. per plate with 5 min. adjustment time between each plate. It will enlarge four times, reduce three times with maximum plate size of 12 in. by 16¾ in. and a minimum of postage stamp size. Any part of the original copy may be selected for enlargement or reduction.

It is explained that to engrave a plate, the operator inserts the print in a frame on the picture table (see diagram), which moves horizontally back and forth under an optic head. This consists of a light source which illuminates line after line of copy, and also a pair of photocells.

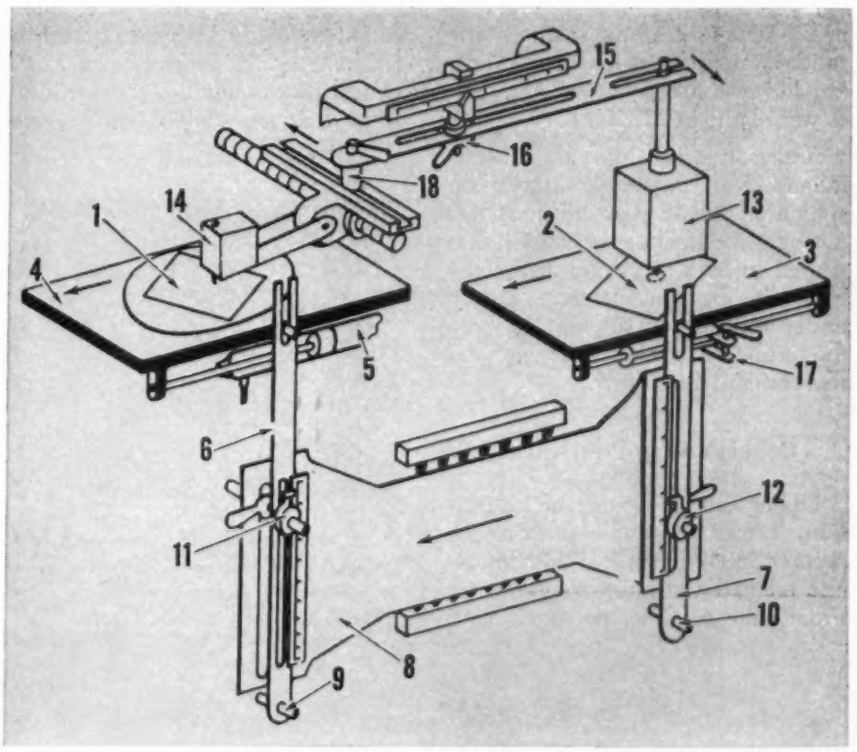
As copy is reflected from each line, the photocells convert it into an electrical impulse which is amplified and passed on to the cutting head, above an adjoining engraving table.

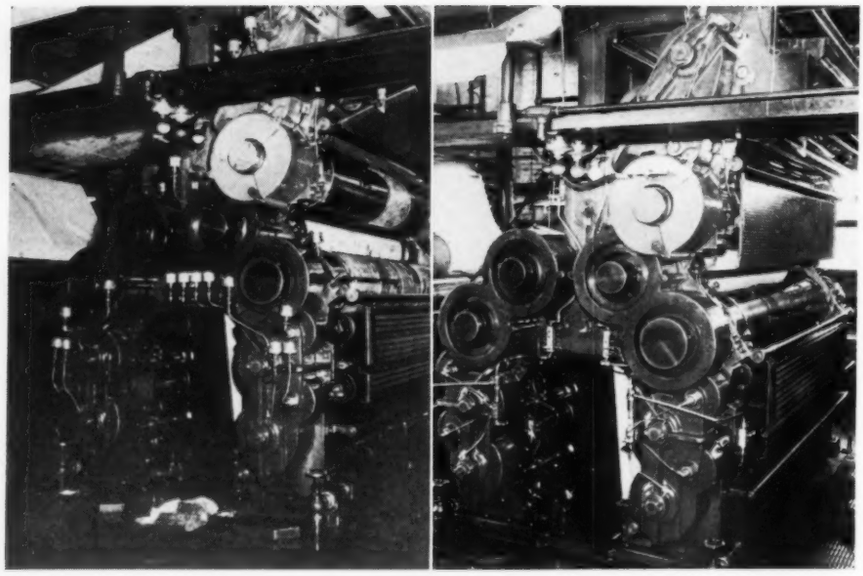
On receiving the signal, the cutting head transmits it to a special precision stylus which translates the signal into coresponding dots or lines on what is to become the printing plate. The magnitude of the cur-

(*Continued on Page 65*)

MECHANICAL PRINCIPLE OF VARIO-KLISCHOGRAPH

The block (1) and the copy (2) are mounted on two flat tables both of which move to and fro in a horizontal direction. These tables are positioned so that the picture table (3) can move beneath the engraving table (4). The latter is driven by a hydraulic system (5) at a speed independent of the degree of enlargement or reduction. The picture table (3) is driven from the engraving table by means of a sturdy linkage system which consists of two vertical rocker arms (6 and 7) and a horizontal slide (8). The pivot points (9 and 10) of the rocker arms, as well as the points of attachment to the tables, are housed underneath the front part of the cabinet. The relative movement of the two tables is controlled by the position of two adjustable slides (11 and 12). The engraving head (14) and the optic head (13) are also linked by a horizontal rocker arm (15), the pivot point (16) of which is adjustable. By this means, the optic head can be made to move faster or slower than the engraving head at right angles to the direction of motion of the tables. The picture table (3) and the engraving head (14) may be freed by loosening the clamps (17 and 18) and may thus be placed in any desired position. The system is adjustable to permit any part of the original copy to be selected for enlargement or reduction.





One of eight press units before (left) and after (right) installing automatic oiling system at Rockford (Ill.) *Morning Star* and *Register-Republic*. Meticulous daily chore has been eliminated.

Push-of-Button Oiling System Replaces 437 Cups on Press

THE Rockford (Ill.) *Morning Star* and *Register-Republic* have completed installation of a fully automatic lubrication system for the eight Scott press units which has eliminated manual filling of more than 400 oil cups. The system reduces oil consumption as much as 90% and increases bearing life as much as 18 times. It is also a primary aid in accident prevention.

According to Earl Anderson, production manager, it is believed to be the first time an automatic lubrication system has been installed on an old newspaper press. The presses were built in 1925.

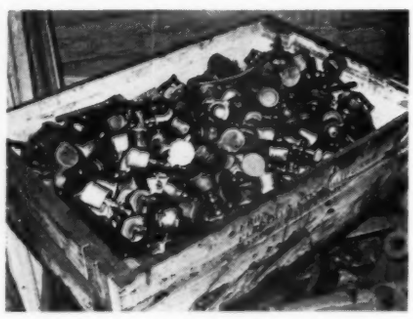
Anderson pointed out that installation of an automatic lubrication system on the 35 year old press was not an experiment. He said it has proved to be a successful step away from the human element—a step undertaken in an attempt to keep the pressroom clean and safe and the accident rate down.

Couldn't Keep Press Clean

Under the old system of lubrication, it was impossible to keep the press properly lubricated without excess oil gathering around the units. From time to time, pressmen have slipped on oily floors and suffered injuries which have taken them off the job, Anderson said.

Before installation of the automatic system, more than 1000 bearing points in the presses were lubricated by 437 oil cups and it was necessary to keep drip pans alongside the units to catch excess oil.

At the request of the *Morning Star* and *Register-Republic*, the Alemite Sales Co. supplied basic engineering data and parts for the lubrication system. Pressroom machinists installed the control boxes, lubrication lines and bearing fittings. More than one-half mile of copper tubing and more than 1500 bearing fittings were installed.



These 437 hand oil cups were replaced by installation of automatic lubricating system on the eight unit press at Rockford (Ill.) *Morning Star* and *Register-Republic*.

Operates by Compressed Air

Basically, the installation is a fully automatic continuous oiling system which operates by compressed air. It consists of a simple lubricator which applies a constant uniform oil film to groups of bearings designed for either grease or oil lubrication.

The system can provide automatic uniform oiling for all types of lubricated mechanisms. It serves plain bearings, ball and roller bearings, vees, slides, ways, rollers, cams, chains and gears. Another feature is that it cools and protects while it lubricates as a continuous flow of air cools the bearings and prevents entry of dirt from the air.

At any point of application, the system applies lubricant in any of three forms, an oil mist form, a spray form, or a condensed form where oil mist is reconverted to liquid oil.

As a result of the system's installation, in addition to the safety factor, consumption of oil dropped from 55 gal. each week to an estimate of two barrels each year. In the past more than 50% of the oil used was wasted.

Before the system was installed, two pressmen were required to fill the oil cups at least twice each day. Now this is unnecessary. Other time consuming jobs reduced by the system are cleaning of press motors and the wiping of excess oil from the units.

Use of wiping hand towels was reduced from about 2000 each week to about 500. The system also increased press blanket life because the blankets are no longer oil-saturated.

Charles King, pressroom superintendent, who recommended that the automatic oiling system be installed, said initial results are more than satisfactory.

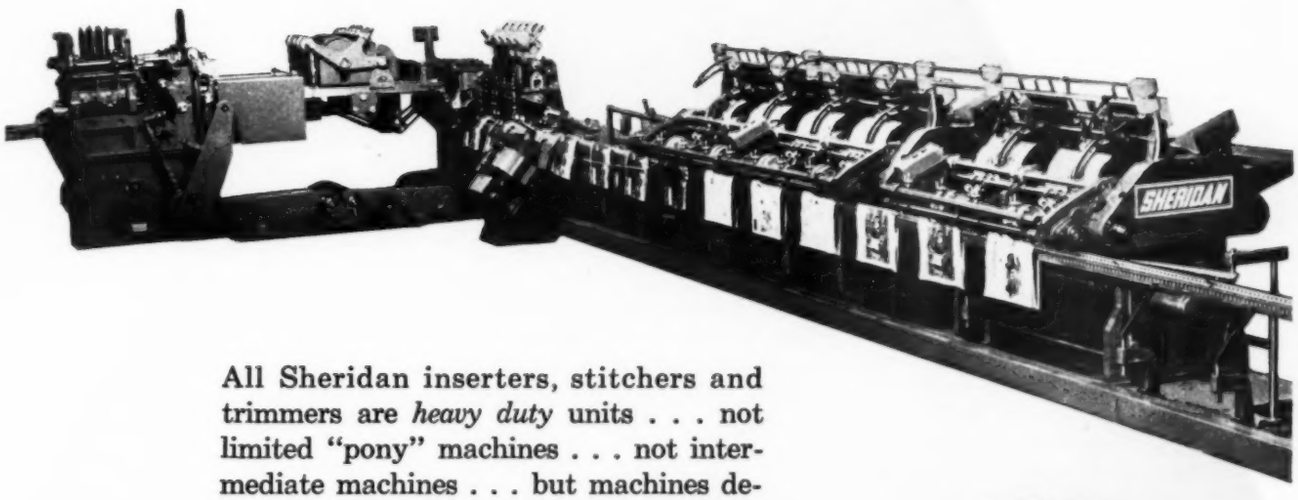
Comparing the system with the old method of press lubrication, King said: "Now all you have to do to oil up is to press a button." ⊙

Fill Out Reader Service Card

Use the convenient yellow Reader Service Card found in this issue for requesting free literature found in PRINTING PRODUCTION's Graphic Arts Literature section.

AUTOMATIC SADDLE BINDING?

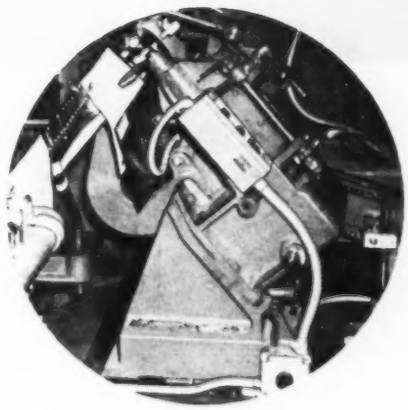
Sheridan builds to achieve high hourly production... not to meet a price!



All Sheridan inserters, stitchers and trimmers are *heavy duty* units . . . not limited "pony" machines . . . not intermediate machines . . . but machines designed and built to deliver consistently high hourly production.

This extra value may mean a slightly higher *initial* investment . . . **BUT** Sheridan equipment *consistently* returns higher profits through a substantially lower cost per thousand books.

Heavy duty construction of all units, with the weight in the *right* places, plus dynamic balancing of rotating parts, eliminates vibration and deflection, the major causes of equipment malfunction. These extra construction values also mean minimum maintenance and longer machine life.



Only Sheridan offers the positive action Sheridan master book caliper for unfailing detection of over or under sized books . . . another extra value feature.

SINCE 1835 / **SHERIDAN**

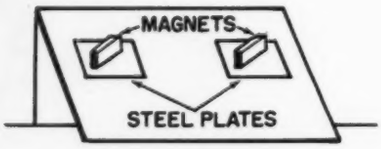
T. W. & C. B. SHERIDAN COMPANY
220 Church St., New York 13, N. Y.

PRODUCT OF 125 YEARS OF EXPERIENCE 1835-1960

For More Information Circle 157 on Reader Service Card

MAGNETS HOLD PRESS OK SHEET

Several ways are employed by different pressmen to hold the color OK sheet in position. One method which I have found to be convenient consists of using small magnets to hold the sheet in place on the display board. Preparing the board is a simple operation. Tape or glue two pieces of thin cold rolled steel (perhaps 1 in. by 2 in.) in convenient location as shown in the diagram. Placement of the steel pieces is governed by the maximum size of the sheet with which you usually work. When you want to hang a



color OK sheet on the board just place the sheet itself over the steel pieces and apply a small magnet on top of the sheet. The magnets are readily obtainable from supply houses.—*Martin E. Odell, pressman, Gospel Trumpet Co., Anderson, Ind.*

GOT SWOLLEN ROLLERS?

When composition rollers swell up from humidity, make a box with copper wire window screening as the bottom. On this screening place a thin layer of calcium chloride flakes (not high enough to touch the rollers). To catch any water that may collect, place another box or pan beneath the screen bottom. *Caution*: never permit the calcium chloride to touch the rollers.

When not on the press, rollers should always be stored in this box, with lid on of course. Swollen rollers will shrink to normal size by morning. If you keep them boxed every night, they'll run in a Turkish Bath all day!

Similar storage boxes will prevent rust from forming on small expensive tools. — *Maurice Weiner, Owner, The Morris Press, Albany, N. Y. Courtesy Kimberly-Clark Corporation, Neenah, Wis.*

SCREENED TINT FOR STATIONERY

In cases where a light tint is wanted at the top of a letterhead, an existing screened photoengraving or electrotype tint block can be used. The tint block can be employed without expense for art work particularly for short runs on platen presses.

The base of the cut is built up for printing in the desired areas and feathering off in the unwanted areas; the platen packing sheets are then torn off in the unwanted areas to correspond. By using a frisket with feathered edge, no square or straight break can occur. We have done this type of work as described on letterheads as well as 3 in. by 5 in. gummed labels.—*Mary E. Merrill, Acme Printing & Stationery Co., Sedalia, Mo.*

Running Inventory of Newsprint Supply

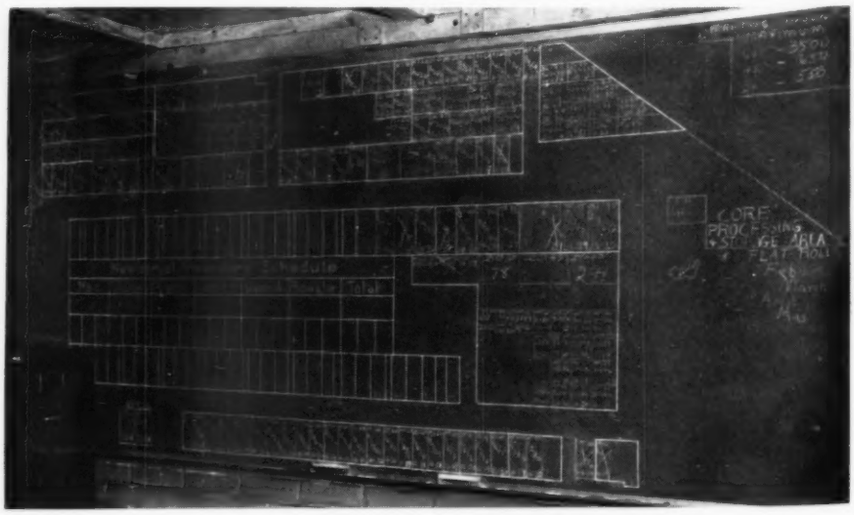
At the Buffalo (N. Y.) *Evening News*, a running inventory is kept of the newsprint rolls. These ponderous yet fragile rolls are brought to the 4000 T. capacity paper storage room directly from railroad cars or road trucks.

To keep track of the newsprint in storage, a large control blackboard is mounted at one side of the storage room. In height it extends from the top of the brick wainscot to the ceiling. Information about the rolls is readily visible to anyone standing on the floor.

A diagram of the floor plan is permanently outlined on the board with spaces to indicate the aisles for truck and roll movement as well as numbered roll storage areas. In this way, proper consumption of rolls according to seasoning age is secured. Rolls are stored on end in three high tiers. Handling is done with a battery powered truck.

The board shows location in storage of each carload and truckload and number of rolls in each location. Colored chalk is used to indicate the month placed in storage. The board also is the key to rotation of inventory, planning and day's layout and storage work, as well as a running inventory of rolls. Each press unit is carefully limited to newsprint from only one of the six mills supplying newsprint.

It was explained by Wm. E. Keightley, mechanical superintendent, that newsprint rolls are seasoned for six weeks in storage at 50% r.h. and 70 deg. F.



Newsprint inventory control board at Buffalo News shows location of rolls in storage area.

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is accepted for publication it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

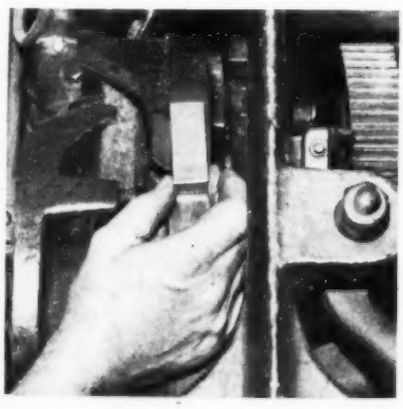
Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

INADEQUATE OFFICE SUPERVISION

We have inadequate front office supervision of newly installed litho facilities. Recommended: Assign to one key man sole responsibility for litho scheduling, making plate layouts, purchasing film and plates, marking up color proofs, and working with sales force in shaping most effective use of offset to meet customers' needs. — *By courtesy* The Imprint, *published by New York Employing Printers Assoc., Inc.*

TWO GAUGING TOOLS IN ONE

Some machinists make use of a special width gauge and a steel graduated scale when adjusting the clutch flange and starting and stopping pawls on Intertypes and Linotypes. In the illustration is shown



a block which can be used when making flange and pawl adjustments.

It consists of a case-hardened steel block, 15/16 in. wide, by 15/32 in. high, by 2½ in. long. (Length is for convenience in handling only.) The 15/32 in. dimension is used as a feeler gauge when adjusting clearance between driving shaft bearing and clutch flange. To obtain the 15/32 in. adjustment of the starting and stopping pawls, the gauge is laid on the delivery and transfer cam opposite the pawl, which then can be adjusted by the screw until the block is flush with outside rim of the delivery and transfer cam.—*Peter J. Kenney, machinist of composing room, Pottsville (Pa.)* Republican.

MAKE USE OF WASTE STOCK

In cutting stock for a job you often find there will be a margin of an inch or more that won't be used. Lock something up in this waste area—your firm name, and advertising slogan, a goodwill message, or just an ornamental border. When the job is trimmed, cut this strip off and use it for banding smaller jobs. —*Vesta M. L'Ecuyer, The Hanover Press, Hanover, N. H. Courtesy Kimberly-Clark Corporation.*

Beyond Duplication...

The famous Gutenberg Bible—being one of the first books printed from movable type—can never be duplicated. And because many years ago Imperial was first with type metal Plus and Service Plans, you are assured of metal services beyond comparison.

Imperial

Imperial type metal company

Chicago 50 • New York 7 • Philadelphia 34

For More Information Circle 93 on Reader Service Card

'Press Isn't Worth Darn'

(Continued from Page 50)

range from 5500 to 7200 i.p.h. according to stock used.

Press makeready on letterpress wrap-around and offset presses has been equalized. Press running speeds are identical. Wrap-around plate costs average between the cost of albumin and deep-etch plates.

Questions by Audience

Following the closing of Wortman's address and the showing of a movie of the wrap-around press, there was a lively series of questions asked from the floor.

In response to a question, the audience was told that Harris-Seybold will prepare to produce larger wrap-around presses, including color presses, in the undetermined future.

Responding to another question, Wortman stated copper plates will be used in the future. At this juncture, William Bradley of Bradley & Sons, Atlanta, Ga., commented that up until recently 0.032 in. zinc plates had been used on his press. Now 0.020 in. thick copper plates are being used because the copper plate, in his opinion, conforms to cylinder curvature better. The moderator stated that at present zinc, magnesium and copper are being used on wrap-around presses and no doubt other metals for making plates will be available. Dycril plates also are in the picture.

Regarding the making of plates, Panelist Thomas stated that plate supply was no problem in his plant. The plant maintains platemaking facilities and equipment and makes plates as needed.

Panelist Harris answered a query about plate supply sources. He said several of the single color wrap-around press users installed platemaking equipment. The Harris-Seybold Co. feels it can offer help to prospective users of wrap-around plates. Temporarily, Harris-Seybold will make plates; in turn, a local platemaker will be offered assistance by the Technical Center in the techniques for making the plates.

There was considerable speculation from the floor about the variety of work which could be done profitably on the wrap-around press. Wortman's reply was: "The subject could be discussed for a year." Letterpress stocks are used on the wrap-around press.

Some discussion arose regarding plate proofing. Thomas said that Vandercook & Sons shortly will introduce a new model proof press with adjustable bed on which flat proofs can be taken. He added: "Until we get one of these presses which is on order, we will continue taking proofs on the production press."

Harris also replied to queries about platemaking difficulties. He said there are two critical areas yet. One of these is the maintenance of dot size in the plate and ". . . we have some things to learn about printing down and scumming out." There is no warpage problem when burning-in a plate.

During the platform-floor discussion, Moderator Wortman said loose plate lockup can cause plate breakage. He also commented that rotary etching will help prevent plate breakage.

Thomas said he had experimented with zinc and magnesium plates. For repeat runs he feels magnesium is preferable. However, he is not certain of the superior quality of halftone dots on either metal.

Thomas commented further on platemaking procedures. He reported he has changed his thinking in regard to halftone dot size. "In offset plates some small dots will print," he said, "but in wrap-around the dots must be there to print." ⊕

WHAT'S AHEAD FOR THE READER

Next month you will receive *Printing Production's* popular Where To Buy Guide as part of the December issue. This reference section of more than 100 pages has been completely revised and brought up-to-date to show accurate supply sources of printing equipment and supplies.

The Guide contains listings of more than 1000 different companies who supply the Graphic Arts industry. Departmentalized sections are intended for your convenience in locating supply sources for the equipment and supplies you plan to purchase in 1961.

In addition, there are complete sections on Graphic Arts trade names; alphabetized listings of manufacturers, suppliers and dealers; 18 pages of important press specifications, and new information for the printer on paper and envelopes.

There is also good reading in store in next month's issue. One story will explain the effects of carefully chosen interior color in a printing plant. Photoengravers will be fascinated with the details of a revolutionary etching process. Lithographers will find realistic information in the story *Living with Offset Color Process Work*.

Other important features include an on-the-scenes report of Printing Industry of America's convention and production conference, and a story of the technological thinking of the printing industry's labor unions. There will be big value reading and reference material in *Printing Production's* year-end issue.

Registering Overlays

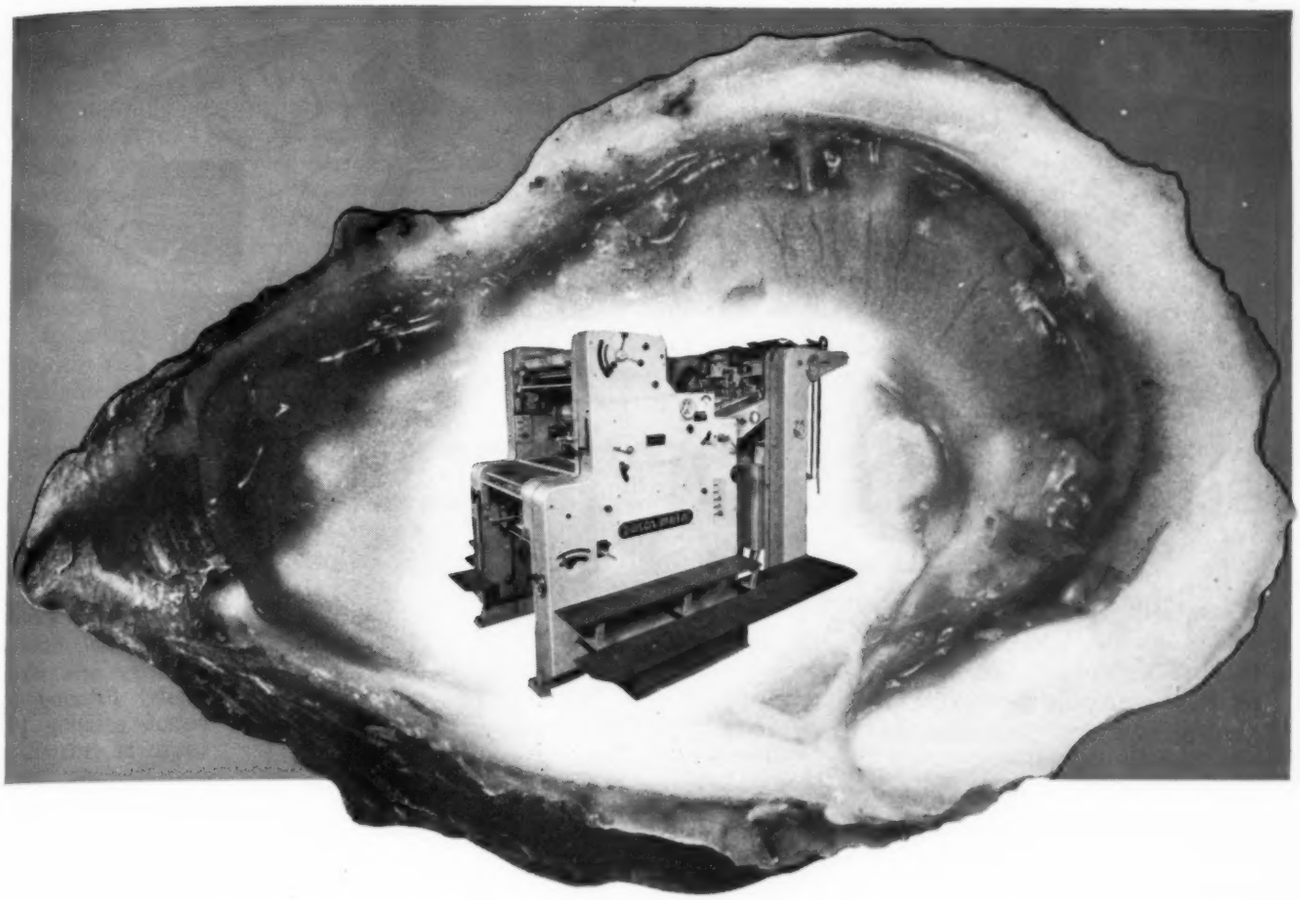
(Continued from Page 39)

type of cutting, provides the pressman with a simple means for returning the overlay accurately and in exact register with the press cylinder packing.

The cutting die is shaped somewhat after the pattern of a capital letter C. Depth of cut into the packing is 0.045 in. The shoulder immediately above the die automatically provides this margin of safety. In this way, the pressman can stab the tympan without necessity for so closely regulating the force of the hammer blow.

Checking the Makeready

Occasional checking of the makeready to see if the overlay is in register is good practice on presses carrying two or more makeready sections. This can be done im-



Now's the time to move up to a PEARL

(trade-ins were never more liberal)

Make the printing world your oyster with the Pearl 19″ x 25″. You'll turn out 9 by 12 and 8½ x 11's four-up at 8000 iph!

The Pearl's a big, brawny, precision press, built to register perfectly and run quiet even at 8000 iph. You'll like the ink coverage 20 rollers provide. The 60″ feed capacity. The special device on the delivery end that enables you to unload without stopping the press. So why waste money on an obsolete press when you can handle all popular sheet sizes faster, easier and for less with a Pearl 19 x 25. Especially now, when all Pearl dealers are offering . . .

the most liberal trade-in allowances in history! Yes, now you can save big money on the big money-saver: the fast, quiet Pearl 19 x 25. Write or phone your nearest dealer for full details, or: HCM Corporation, 80 Varick Street, New York 13, N. Y.

PEARL by color metal

A world leader in the development of offset printing presses Zurich, Switzerland

Distributed in the U.S. exclusively by:

80 Varick Street New York 13, N. Y.

HCM CORPORATION

General Sales Agent: Consolidated International Equipment & Supply Co., Chicago, Ill.

Authorized Dealers: *East Coast:* Ernest Payne Corporation, New York / *Philadelphia:* Foster Type, Philadelphia, Pa. / *Washington:* George R. Keller, Inc., Washington, D.C. / *West Coast:* Graphic Arts Equipment & Supply Company, Los Angeles, San Francisco, Seattle, and Portland.

For More Information Circle 85 on Reader Service Card

Win sales and circulation!

USE GREAT NORTHERN'S

PUBLICATION PRINTING PAPERS

Clean, smooth, strong and color-minded— they're yours for Supplements That Sell.

It's a fact! Supplements, in color, are the big new thing in newspapers today. If you print them, you want to get the order, make the sale . . . and make a profit, too. See how Great Northern's "Pub Printing" can help!

Here's a strong, smooth, level sheet with excellent high-speed printability and an affinity for color no matter what process you may use.

If you're a publisher, you can look to Pub Printing for Special Sections and Supplements That Sell . . . and sell your advertisers' products, too. Here's color reproduction with sparkle in it. Here's good "feel" without excess bulk.

For printer *and* publisher, Pub Printing offers better profit-margins . . . lower production costs. For here is the happy contradiction of low-priced grades of paper which go hand-in-hand with high-quality printing.

Created from selected groundwood pulps by men who know paper, Great Northern's Publication Printing Papers are the great new "find" for successful supplements . . . and for many books, periodicals and catalogs, as well.

In paper, too, find out for yourself! Ask for samples. Try them. Find out what "Pub Printing" can do for your printing sales and circulation . . . and profits, too!

PRIME FACTS you'll like to know about Great Northern's PUBLICATION PRINTING PAPERS

Opacity and strength. "Pub" Printing does a better printing job because of greater opacity and strength.

Extra calendering provides a smoother surface for ink lay. Gives crisp definition to text and halftones.

Choice of finish. Extra smoothness of Standard Publication Printing is designed for gravure's need for a level, uniform sheet. A slightly lower machine finish is available for letterpress.

Choice of colors. White or blue-white are standard colors.

Good "Feel." Normal basis weight of 34 lbs. (24″ x 36″ sheet) provides good "feel" without excessive bulk.

GNPCo

GREAT NORTHERN PAPER COMPANY

Mills in Maine

Sales Offices: 342 Madison Avenue, *New York,* MUrray Hill 2-5984
230 North Michigan Avenue, *Chicago,* FInancial 6-1993
20 Providence Street, *Boston,* HAncock 6-7960
2420 Carew Tower, *Cincinnati,* GArfield 1-3080

From tree to you . . . the right paper every time!

When you place your order with Great Northern, it is routed back to the tree . . . or almost. Selected pulps are blended to your requirements by men who make a life-work out of making good paper. The paper you order is made to the weight you ask for. It is calendered for the degree of surface smoothness adapted to your printing process. Even in a giant, high-speed process like modern paper-making, "custom-made" means it — at Great Northern. An experienced Great Northern representative is ready to work with you! He's as near as your phone. Call him!

The company that thinks about . . . does the best job today

mediately after finishing press preparatory work and before starting the press run.

Print an impression on the top draw sheet and cut through the packing with a makeready knife at the corners of the cuts. Lift the packing and check to see if all sections of the overlay have been mounted in proper position in register with the stab marks on the manila.

If the overlay sections are not in register with the stab marks, perhaps the glue is not of the proper kind, or the manufacturer's recommended waiting interval to permit the glue to set has not been provided before reeling up the packing.

If these suggestions, which have been made by an experienced pressman, are followed, greater consistency in the work quality will result. More details may be obtained by circling No. 295 on Reader Service Card.

Councils Hold Conference On Selecting Proofreaders

"Selection and Training of Proofreaders" will be the topic of a conference sponsored jointly by the composition committee of the Research and Engineering Council and the Education Council of the Graphic Arts Industry. The conference will be held at the Belmont-Plaza Hotel, New York, Dec. 1-2. Cooperating in the development of the program is the Proofreaders Club of New York. Conference chairman is H. S. Robinson, Vail-Ballou Press, Binghamton, N. Y.

One of the featured speakers will be Dr. B. Dvorak, chief, Testing Branch, U. S. Department of Labor, who will discuss utilization of aptitude tests developed for selection of proofreaders. Quality control in proofreading and publisher-printer relationships will also be discussed.

Program details may be obtained from: Research and Engineering Council of the Graphic Arts Industry, 1411 K St., N.W., Washington 5, D. C., or Educational Council of the Graphic Arts Industry, 5728 Connecticut Ave., N.W., Washington 15, D. C.

RIT Schedules Color Seminar

The second annual Color and Color Control Seminar will be held at the Towne House Motor Inn, Rochester, N. Y., Dec. 14-16. Sponsored by Rochester Institute of Technology, the seminar will be broadened this year to include experience in using color measuring techniques for specification and control for the purchasing function. A maximum of 35 registrants will be accepted for the seminar. Cost for enrolling is $150.

Machine Separates Color

(Continued from Page 57)

rent determines the depth of each cut to regulate the size of each dot or line.

Like procedure is followed for red, yellow and blue plates, with appropriate settings made by simple machine adjustments.

Precision register is controlled electronically, so that the variable of human judgment is held to a minimum.

Interchangeable halftone screens are available with 65, 75, 80, 100, 120 and 133 rulings.

Comments by two *Post* executives are: John Caswell, photoengraving superintendent, said "The equipment is easy to maintain and it takes up little floor space." Harry Eybers, production manager, observed "This is a real jump forward in ROP color reproduction."

Photoengravers Story

(Continued from Page 50)

al etching machine. This smooths out the etch and prevents any sticking during the electrotype molding operation.

Engraving Research Progress

Progress in photoengraving research activities was discussed by Dr. Marvin C. Rogers, executive director of Photoengravers Research.

Dr. Rogers reported laboratory development of PERI 13a, an etching additive formulation designed to improve the deep etching characteristics of iron chloride on copper. It has been made available to PER members. "Although it was developed as a material to permit unlimited combination plate etching," he said, "its greatest application to date has been on line work. Current laboratory work and reports of field trials show application to some types of combination plates. Experience is too limited to permit complete reports by us."

Another laboratory service will be started shortly. This will consist of publication of monographs on special topics, starting with a paper on *Engraving Machines as Tools for the Photoengraver*. Also, he reported, a new standards committee has started work on standards for powderless etching negatives and associated processes. Other standards will be developed later.

Donald B. Alnutt, Graphic Arts research director of Philip A. Hunt Co., discussed field trials of PERI 13a additive for powderless etching of copper—both halftone and line work in combination. He said the method still is somewhat of a compromise and is not the final solution. When properly done, 0.020 in. depth in line work may be obtained. The shoulders on line work are smoother than can be secured by conventional methods.

Word for Profits is Control

It is the opinion of Chesley F. Carlson that the opportunities and the potential are greater today than ever before in the history of the photoengraving industry. Carlson, who is president of Chesley F. Carlson Co., said the photoengraving industry basically is a supplier to the magazine and newspaper printing industries.

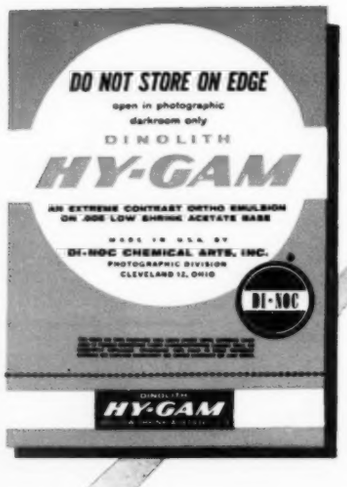
In pursuing his discussion, the speaker urged photoengravers to make the plates for the new wrap-around printing press.

"You now have the Dycril plate," he continued. "It's a relief plate with considerable difference in platemaking technique. There is keen interest in this plate throughout the industry. There seems no question but that it answers new trends and new demands —and it opens new markets."

The speaker suggested that it would be logical for the photoengraver to make the plates. Important considerations are that the engraver has camera knowledge and the ability to shoot a good negative with all the techniques of developing, etching and other devices.

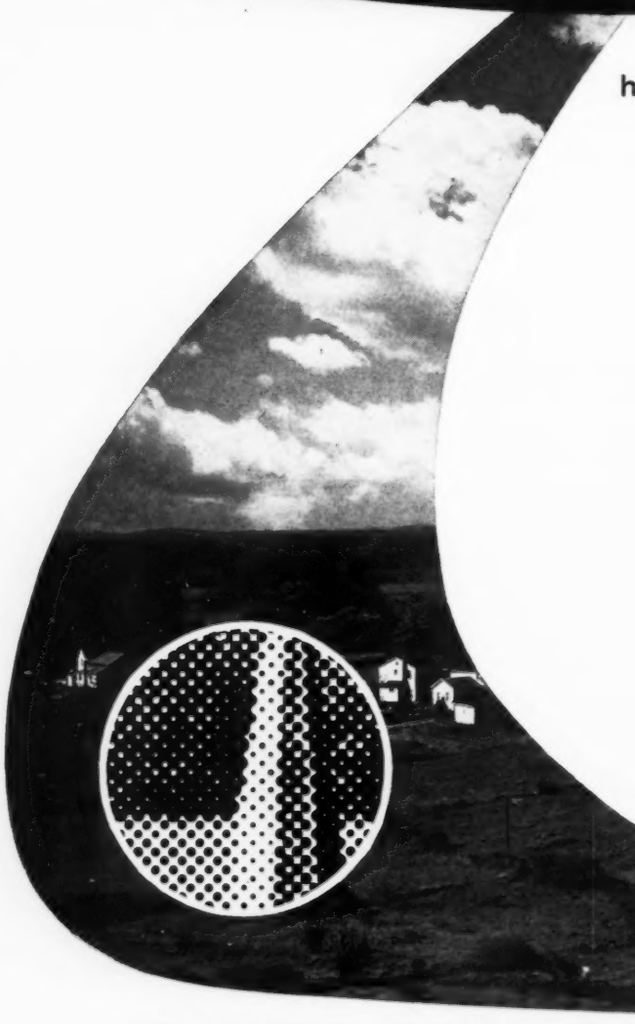
Carlson's concluding comment about wrap-around plates was: "The shifting emphasis in this 'hurry-up' field is on the photomechanical, on film, and dot size and

Di-Noc film offers supreme quality



A LABEL YOU SHOULD KNOW

DINOLITH *HY-GAM*



here's what you'll find:

- **exceptional contrast — emulsion Gamma over 14**
- **extreme density — up to 99.999% opaque**
- **unmatched versatility — superior negatives from any copy**
- **acute resolving power — no plugging or fill-in**

This outstanding Di-Noc ortho lith film will give you better negatives *with no change in your present photo techniques.* Dinolith **HY-GAM's** high-contrast, high-density characteristics provide extreme latitude and acute resolving power which assure superior halftone or line negatives from the best or poorest copy.

Dinolith **HY-GAM** produces results of equal excellence in line work, contact screen halftones and glass screen halftones. Its extra density allows extensive correction by dot etching.

Compare Dinolith **HY-GAM** with your present film. Contact your nearest dealer for details and price lists. Or write the Home Office in Cleveland.

DI-NOC CHEMICAL ARTS, INC.

PHOTO PRODUCTS DIVISION • 1700 LONDON ROAD • CLEVELAND 12, OHIO

branch offices: New York City, 9 East 19th Street • Chicago, Illinois, 4522 West 16th Street
Utica, Michigan, 45834 Van Dyke Avenue • Washington, D.C., 500 Walker Building • Tulsa, Oklahoma, 4407 South Peoria
Honeoye, New York, East Lake Road • Menlo Park, California, 110 Gilbert Street
subsidiary companies: Di-Noc Chemical Arts (Canada) Limited, 565 Davenport Avenue, Toronto, Ontario, Canada
Cramer Dry Plate & Film Company, 1835 Shenandoah Avenue, St. Louis 4, Missouri

For More Information Circle 205 on Reader Service Card

stripping. This is the area of the photoengraver. This is the province in which he has the answers and in which he can excel."

Referring to the future, he said: "The greatest market and the greatest potential in photoengraving may well be outside the Graphic Arts. It may well be in other industrial fields. At least two well-defined applications are here today. Both are logically photoengraving procedures.

"The first of these would be printed circuitry. The other is the production of transistors and other components for wrist-type sending and receiving instruments through a photomechanical process." Carlson advised that the etching of small components of intricate design and close tolerance is a natural for photoengravers.

Double 2-color Test Press

A new color proofing tool to be available shortly was described by Fred Duensing of Vandercook & Sons, Inc. This will be called Universal V in-line double two color test press. With the new press, Duensing said, it is possible to prove either two sets of two color plates at one time, or one set of four color plates for two-and-two printing. Beds are adjustable and the press is equipped with automatic sheet delivery.

Dow Etch Process Report

There are now over 700 licensees in the U. S. and Canada using the Dow etch process, reported A. B. Fry of Dow Metal Products Co. He predicted that the engraver's powder box will become obsolete within a few years.

He said that the Dow etch process is being used successfully by engravers with both magnesium and zinc, but added that the process is not perfect with either metal.

Fry enumerated the advantages and disadvantages of the use of both magnesium and zinc in connection with the Dow powderless etch process.

Magnesium Advantages — Fast and smooth etching, low chemical costs, maximum mattability and moldability, grain structure permits fine screen halftone color work, faster routing, no problem with scum, engraving can be checked during etching, chemicals reasonably stable, and long impression life for direct printing.

Magnesium Disadvantages — Somewhat higher metal costs (compared to zinc), only fair solderability, two machines required for combination plates, magnesium attacked by some inks, requires special skill to bump up halftone dots, and chemicals must be purchased separately.

Zinc Advantages—A more familiar metal, lower metal costs, greater ductility for curving, corrosion resistant, only one bath required, good depth without undercutting, and chemicals can be purchased ready mixed.

Zinc Disadvantages—Difficult to remove scum from plate, engravings often rough or pimply, engraving cannot be checked during etching, high chemical costs, limited mattability, slow etching rate, and limited impression life during direct printing.

Ford P. Ray, technical representative of Gavaert Co. of America, Inc., explained the function and operation of Multimask. This is a three color correcting mask combined in a single film mounted on a polystyrene base.

Ray stated that Multimask can be used to obtain positive transparencies, color negatives and for opaque copy. When photographing a colored original on Multimask film, by contact or through a camera, a partial image is formed on each of the three emulsion layers. In this way, the three partial images combined provide a colored mask. The mask thus assures the color correction of each of the separation negatives, to automatically replace three different colored masks.

Photoengravers at Buffalo

(All names read from left to right)

1—J. W. Bradley, Bradley & Sons, Atlanta, Ga.; Robert L. Featherly and Phil White, Dow Metal Products Co.

2—E. Bartlett Brooks, Wayne Color Plate Co. of Ohio, Dayton, and Thomas L. Cooper, Southern Photo Process Engraving Co., Atlanta, Ga.

3—Arch Dixon, Marathon Div., American Can Co., Neenah, Wis.; Chester T. Marvin, Printing Developments, Inc., New York; Willard Dresang, also of Marathon Div.

4—Marvin C. Rogers, executive director, and Paul Borth, technical director, Photoengravers Research, Inc., Park Forest, Ill.

5—J. M. Hustler and W. F. Mason, Photo Products Dept., Du Pont Company.

● *In-plant experiences with photocomposition, tape transmission, packless mats and water base ink.*

By SIDNEY JAMES PAINE
Special Correspondent

NEW ENGLAND MEETING

Told of Production Posers

PHOTOCOMPOSITION, packless stereotype mats and water base ink were major topics for discussion at the New England Newspaper Mechanical Conference, Statler Hilton Hotel, Boston, October 15-16. Attendance hovered around the 600 mark.

The 1961 conference is scheduled to be held at the Statler Hilton Hotel, Boston, Oct. 21-22.

Chairman of the conference program was Carleton A. Braga, production manager, Woonsocket (R. I.) *Call.*

Frederick L. Johnson, composing room superintendent, New Haven (Conn.) *Register,* was moved from vice president to president. Carleton A. Braga, mechanical superintendent, Woonsocket (R. I.) *Call,* was elected vice president. Walter C. (Pop) Crighton, retired superintendent, New London (Conn.) *Day,* was re-elected secretary-treasurer.

Trained Personnel Need

In opening the composing room clinic, Frederick C. Costello, composing room superintendent, Boston *Globe,* said: "I think you will agree that one of the greatest needs in the newspaper field today is for trained management and supervisory personnel.

"We find that as printing processes become more technical, the lack of trained personnel becomes more apparent. Printers must keep abreast of the findings in chemistry, labor relations and electronics as they affect our industry."

James F. Hurley, photocomposition foreman, Boston *Herald* and *Traveler,* discussed Fotosetter, and Photon photocomposition, stating that "We are well into our fourth year of photocomposition at the *Herald* and *Traveler.* Interest and enthusiasm in our department are continuing at a high level."

Hurley pointed out that within one year after moving into its new plant, the photocomposition department has outgrown the original area alloted and one wall has been removed and relocated to increase floor space approximately 15%.

Training Problems

"Production and training started off in an atmosphere of hostility and suspicion among the craft unions. Overlapping jurisdictional problems were a headache. Union officials were being called in continually to straighten out cross claims, but gradually the problems were ironed out. Training progressed and production began to increase.

"Photo makeup men were in good supply," said Hurley, "due to the local Typographical union's program in new processes. A team of over 20 machine operators has been organized, covering operation running around the clock.

"Every man coming into the department has contributed something along the way to improve production and make the job simpler and easier. Some have invented and devised small tools to improve the handling of pasteup materials. Short cuts have been figured out for keyboarding. Systems for handling, collating and storing art work and pasteups have been submitted and adopted."

Roland V. Maloney, composing

Congratulating new officers of New England Mechanical Conference (at left) is retiring president George F. Luft, stereotype superintendent, New Haven (Conn.) *Register.* New conference president is president-elect Frederick L. Johnson, composing room superintendent, also from same newspaper; new vice president is Carleton A. Braga, mechanical superintendent, Woonsocket (R. I.) *Call,* and Walter C. (Pop) Crighton, retired composing room superintendent, New London (Conn.) *Day.*

room superintendent, Providence (R. I.) *Journal-Bulletin*, said: "We feel that in the TTS method of setting type, as much, if not more, routine equipment upkeep is necessary. This method of averting trouble is a basic procedure in our plant with all our machinery, and we extended it to TTS upon its installation.

"When the Cleantape machine was introduced, we became interested and in July of this year had one installed.

Cost of Corrections

"Many studies have been made concerning the cost of corrections. One formula has been put forth that a correction costs 10 lines of clean tape. It is our thought, then, that emphasis should be placed on eliminating errors—first in the tape and then in the casting machine."

Frederick C. Costello, composing room superintendent, Boston *Globe*, spoke on *Fotosetter and Linofilm Photocomposition*. He said: "The one big problem we have found in this medium is what is called the transition period. This is the period of change from hot to cold composition.

"The heart of this problem is the education of the supervisory personnel in the composing room."

Costello showed a sound film, narrated by himself, showing the job progress in the *Globe*'s photocomposition department.

Robert F. Scherer, plant production manager, *Wall Street Journal*, Chicopee Falls, Mass., told of *Electro Type Setter in the Wall Street Journal Operation*. He explained the Direct Mat Drop Electro Type Setter.

"In 1953, when ETS was first put into production, the *Wall Street Journal* was published in four cities. Today it is published in seven. Since the editorial content of all editions is almost the same, this meant that before 1953 every story was set in type manually four times.

"Electro Type Setter made it possible to punch a story into tape once in New York and transmit it to the other plants where the type was set automatically at a much faster speed than had been possible before . . . The new DMD model does not operate through the keyboard, but actuates the magazine escapements directly."

Among those attending the New England Newspaper Mechanical Conference, held in Boston last month were (seated left to right) Kenneth E. Mann, General Printing Ink Co.; William P. Hourihan, American Type Founders, Inc. Standing, left to right: John B. Newsome, American Type Founders, Inc.; Wilfred L. Hurley, composing room superintendent, George A. Balmore, machinist, and Robert E. Carleton, Linotype operator, all three from the Brockton (Mass.) *Enterprise*.

Alfred N. Peach, Jr., service engineer for Mergenthaler Linotype Co., spoke at some length about the Linofilm system of phototypesetting and composition. He stated the photographic unit operates at 720 characters per min. and can handle the output of at least three keyboards. He said field experience shows that about 10% of a man's time is require to monitor the photographic unit.

He also commented on the Linofilm Composer. This unit enlarges up to six times, reduces a third, angles up to 90 deg., and positions anywhere on a sheet up to full newspaper page size. It can be used for an entire ad or for a portion of the ad in accordance with which approach is most economical.

In commenting upon maintenance he said: "With Linofilm we have filters to change, contacts and commutators to clean and typewriters to service. These things are done at intervals depending on use of the equipment and dust and dirt conditions in the plant. There is also a slight bit of oiling and greasing also dictated by use of the equipment.

"The clue to successful repair of the Linofilm system is to analyze the trouble correctly and to pinpoint it to a certain area.

". . . preplanning is of vital importance to the success of a photographic typesetting installation. After a detailed determination of need has been made, thorough training and a continuing followup with forceful direction must be undertaken to insure success."

Water Base Ink Progress

Charles H. Tingley, research director, ANPA Research Institute, spoke on development of water base ink at the Institute. He related some of the early attempts to formulate water base news ink. One of these developers was Auburn Taylor of the Charleston (W. Va.) *Gazette*. He encountered problems of halftones filling in and rusting of the press parts. Tingley said: "Perhaps if he could have taken advantage of the rust inhibitors we have today he would have been successful. In any event, Taylor made a substantial contribution in the development of water base ink."

Just after the war, the New York *News* embarked on a long series of experiments to develop a reduced rub-off ink. They used a water-base ink also but found that they could not overcome halftone fill-ins.

Various ink manufacturing firms have experimented with inks of this type. Currently, the South Bend (Ind.) *Tribune* and the San Rafael (Calif.) *Independent-Journal* are conducting water-base ink experiments.

Our research center in Easton is guided by committees made up of practical newspaper production executives. One such committee is

(*Continued on Page* 94)

Official U.S. Air Force Photo

AT HIGH SPEEDS, CROSFIELD CONTROLS THINK AHEAD, ACT AHEAD

Now, web fed printers can enjoy perfect color register throughout the entire run from start-up to shut down with Crosfield Electronics' Color Register Control. Unlike other controls which can only correct for what has happened, Crosfield's controls compute predicted errors and counteract them. The result-perfect register throughout the run.

CROSFIELD ELECTRONICS, INC. / 47 New York Avenue, Westbury, Long Island, N. Y.

ELECTRONICS CROSFIELD INCORPORATED

For More Information Circle 43 on Reader Service Card

Small Lithographer Sets Pace

(Continued from Page 47)

available. A constant feedback of information must be maintained if the system is to function properly.

Since the management function includes the control of production, costs, waste and other important areas, control of quality is most important. To answer the question at what level should quality be controlled, Wood offered three factors.

It should be controlled at a level: (1) Satisfactory to the end use of the product; (2) Satisfactory to the customer; (3) Better than is available from competition at the same price. He added: ". . . we should not strive to maintain a higher quality level if it means a higher cost. The high cost of perfection makes it a prohibitive and undesirable level of quality to attempt to maintain."

At Western, one of the main purposes of the quality control department is to assist pressroom supervision in the surveillance of the quality function, he said.

Most Important Material

Ranking paper as the most important raw material in the printing process, Louis D. Pollner, supervisor of quality control, Consolidated Lithographing Corp., Carle Place, L. I., N. Y., indicated it is probably the most costly item if it does not perform properly in the printing operation.

Most paper tests at Consolidated are made to show how the stock will perform, Pollner explained. Included are tests for moisture content, shape, ink receptivity, pick strength, acidity or alkalinity, color, squareness of trim and general appearance. In addition, tests are performed to determine effects of subsequent operations which the customer performs. These consist of ascertaining water absorbtion of the base stock of label papers and the adhesion of gummed labels.

Pollner believes the most important factor in running paper is the combination of the moisture content and flatness of stock. He said: "Its moisture content must be properly related to the humidity and temperature of the pressroom in order to print free of distortion. Likewise, its shape must be flat, or reasonably close to flat, in order to run free of distortion."

The second half of Pollner's presentation consisted of descriptions of a number of tools and gauges which are useful in controlling quality of work in progress.

One of these is a dark field illuminator for observing fringes around halftone dots. It consists of a box with a glass cover, half of which is ground glass and half clear glass. Illumination of the ground glass produces normal stripping table illumination while the clear glass section produces a dark field illumination. The use of this box, according to Pollner, standardizes viewing conditions so that anyone can readily see soft dots.

He also told of an illuminated magnifier which is useful in platemaking operations. This instrument provides 50X magnification and can be used for checking reticulation of deep-etch coatings on multimetal plates. In many instances, with the help of this magnifier, the condition is found before etching.

Other uses for the magnifier, Pollner reported, are for judging plate grain, quality and firmness of a deep-etch stencil, and other applications where close examinations are needed.

Instead of scribing a side guide mark on the plate for pressroom use, Consolidated has developed a mark which is graduated, similar to a ruler, in hundredths of an inch. It is exposed on the plate at an angle to the edge of the sheet so that the individual graduations are 0.005 in. apart in the direction of the side guide motion. Part of the mark prints and part of it falls outside the sheet. By noting whether more or less of the mark prints, it is possible to discover the extent of side guide variation to 0.005 in. Pollner commented: "Rather than state our pullover is good, or bad, or out a hair, we can describe the inaccuracies in concrete terms."

Another item he mentioned is a lightweight, palm-size gauge for checking press gripper bite or side guiding. The sheet is inserted into the throat of the instrument, called Sur-Check, while a slide bearing a reference mark is adjusted. Once set, the gauge can be used throughout the run to check the uniformity of the lay of all sheets.

A description of the quality control program in the printing department of E. I. du Pont de Nemours & Co., Philadelphia, was given by Russell Johnson, assistant superintendent. The prime target, when the program was set up, was color and its control. One of the reasons for the interest in quality control, Johnson stated, was the demands of customers for more uniformity in printing packages and labels.

Process Variation

One of the first and most important principles to understand when undertaking quality control is variation and the knowledge that all processes vary. The objective is to make sure the process does not stray outside the natural variance of the process.

After studies were made and standards developed, along with their deviations, it was found that the probability of staying within specifications was 98%. Johnson said: ". . . we could predict the percentage of change in our ink film on our production presses. Black and strong colors could easily have a variation of ±.08 density and visually could not be detected, while small variations in pastels or light colors could be detected by the eye and must be maintained to ±.04 density."

Johnson indicated statistical quality control is extremely helpful since it provides a means to measure the extent of errors or variation and assists in analyzing for the specific variable causing the trouble.

During a press run at Du Pont, sheets are random sampled at least once during every thousand impressions and the pressman is constantly kept informed as to the findings. If serious deviations from the

OK are discovered, flags are inserted into the load telling what and where it is wrong.

These sheets are not allowed to leave the pressroom, Johnson stated, since there is a danger of the substandard sheets becoming mixed with the good work during subsequent operations. If this should happen, it is almost impossible to find the defectives.

"It should be understood that quality control is in no way designed to minimize the skill of the employees or to replace skilled people," Johnson said. He believes the advantages of a quality control program are 80% psychological. He added: "By that we mean human nature dictates that all of us do a much better job if we are being checked."

Johnson feels the cost of an inspection program used to eliminate poor work will more than pay for any costs incurred in operating a quality control program.

Litho's Impact at Convention

(Continued from Page 46)

(1) Analyzing percentages of productivity, which if increased means more hours to sell at less cost per hour. (2) Examination of administration and selling overhead percentages in relation to manufacturing expense. (He suggested checking each overhead item against industry ratios every six months.) (3) Periodic examination of spoilage records with efforts being made to remedy the causes. (4) Overtime costs should be kept under close observation. (5) Management should show a definite interest in cost records which will create a tightening up effect.

Zinc Wipe-On Plates

Dr. Paul J. Hartsuch, technical assistant, Lithographic Technical Foundation, Chicago, presented a paper on the successful efforts at LTF to develop a negative working, wipe-on zinc surface offset plate.

The program started in March 1959, and consisted of the development of a zinc alloy of titanium and copper which eliminates plate creep. A tub grain which, according to Hartsuch, is as fine as a brush grain on aluminum was developed which allows successful application of a wipe-on coating. The graining procedure makes use of slow graining speeds, small marbles, fine quartz and pumice powders.

Hartsuch explained that zinc is naturally more ink receptive but has been difficult to desensitize in nonimage areas, while aluminum is the opposite. Through various treatments, it was found that zinc could be made more water receptive than aluminum, however, the image tended to blind, Hartsuch said. He added this shows it is possible to alter the zinc surface to give any ink-

Lithographic Displays were Popular with Many at NAPL Convention

(All names read from left to right)

1—Checking program schedule in the exhibit area are Alvin H. Arvio, management trainee, American Can Co., Bellwood, Ill., and Edward L. McDermott, quality director, Wallace Press, Chicago.

2—Interest in camera equipment was displayed by: James Dickson, secretary-treasurer, Crest Litho, Inc., Albany, N. Y.; Wm. Dombrey, Process Camera & Equipment, Inc., and T. Greenwood, Pres., Crest Litho.

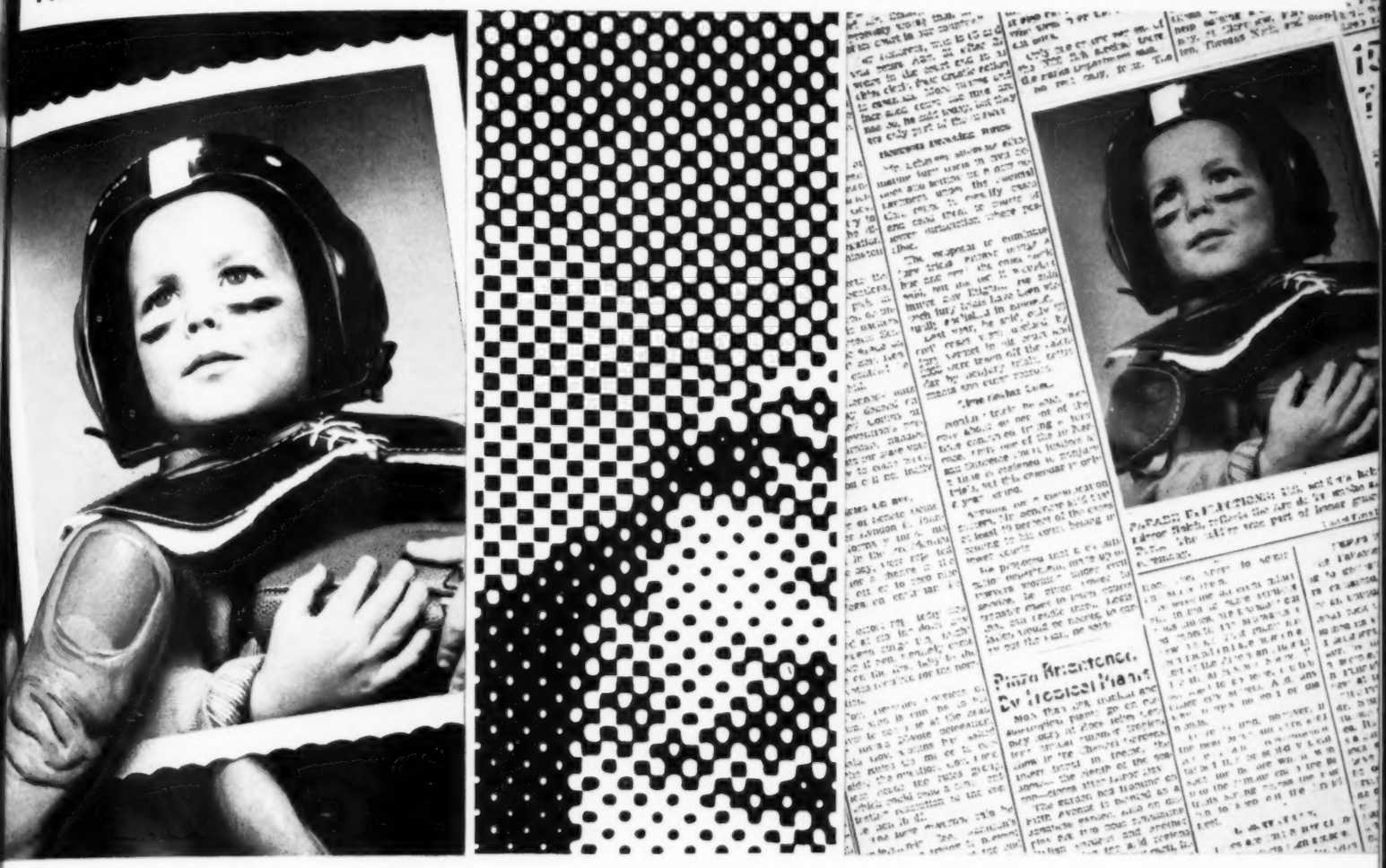
3—Three Indonesians studying lithographic operations and procedures in the U. S. are: Capt. Soeradio, chief, Technical Dept., Reproduction and Printing Factory Topography; Major Zazoeli, chief of the military geography, and Capt. Ir. Slamet Hadi, vice director, Geodetic Institute Topography.

4—Stanley E. Hough, Ilford Incorporated, is explaining some characteristics of film negatives and positives to W. P. Scott, owner, and Murlan Miller, pressman, both of Scott Office Supply Co., Defiance, O.

5—Frank Peterson, offset superintendent, Standard Publishing Co., Cincinnati, examines a plate in the presence of C. J. McLaughlin, Azoplate Corporation.

6—Richard Borrowdale, R. W. Borrowdale Co., explains a technical point to Howard Brinkman, Precision Color Plate Co., Chicago, Gene Kelley, quality control supervisor, and Donald Adams, litho supervisor, both of Logan Printing Co., Peoria, Ill.

FINE PICTURES NEED SUPERIOR ENGRAVINGS FOR QUALITY REPRODUCTION



Whether you print direct or mat...

You can take PRIDE IN YOUR PRESSWORK with high fidelity Fairchild engravings

The quality of any engraving is fully revealed on the printed newspaper page. When your plant produces its own halftones on a Fairchild Scan-A-Graver® or Scan-A-Sizer® you *know* you can reproduce the exact tones of the original art. These electronic engravings are produced on Scan-A-Plate®, a specially formulated, low-cost engraving material which is tough, resilient, and has excellent ink transfer qualities. But most important, the electronic "eye" of the Scan-A-Graver has the ability to engrave *exactly* what it sees.

You can depend on Fairchild engraving quality to help you achieve results you can be proud of, complementing your craftsmanship. For finest reproduction, direct printing with Fairchild originals is best. However, they can also be matted with excellent results. For commercial jobs they can be flat mounted on patent base, metal or wood, or molded for electros.

All Fairchild engravers produce a true pyramid-shaped halftone dot, angled at the desired 45°. They do not require angled plate or copy, which saves both time and engraving material. You'll want to know the full story. It's in the free 20-page illustrated booklet "New Scan-A-Graver Illustrator."

FAIRCHILD GRAPHIC EQUIPMENT
Division of Fairchild Camera and Instrument Corp.

SCAN-A-GRAVER® • SCAN-A-SIZER®
Electronic Engraving Machines

District Offices: Eastchester, N. Y.; Atlanta, Ga.; Chicago, Ill.; Los Angeles, Calif.; Toronto, Ont.

Fairchild Graphic Equipment, Dept. FGE 36
Fairchild Drive, Plainview, L. I., N. Y.

Please send me a free copy of "New Scan-A-Graver Illustrator."

Name_____

Company_____

Street_____

City_____ Zone_____ State_____

For More Information Circle 58 on Reader Service Card

water balance which one desires.

The developing ink produced by LTF not only develops the image, but also desensitizes nonimage areas, Hartsuch said. Among other advantages claimed is the elimination of the need for etching the plate, the laquering of image areas to insure longer runs and easily made corrections.

A panel consisting of seven members who are considered to be leaders in their respective areas in the lithographic field answered questions from the audience at the all day technical session held on Saturday. For this meeting, the Chicago Litho Club joined with members of the convention resulting in the best attended meeting.

Paper vs. Molleton

Michael H. Bruno, research director, Lithographic Technical Foundation, Chicago, was asked for an opinion on the superiority of paper dampeners. He indicated that in some respects they were superior to molleton and are now being used extensively. The parchment used in the dampeners carries the water on the surface and has no affinity for ink. The drawback with paper dampeners, he indicated, was that there is no reservoir of water, thus making the ink-water balance more difficult to attain. To overcome this reservoir problem, Bruno said, many run a molleton roller in the number two position out of contact with the plate but in contact with the vibrator. Alfred Lackner, press superintendent, Newman Rudolph Printing Co., Chicago, commented that he thought the waste was greater with paper dampeners, but that they were much less expensive.

How does one determine whether plate scum is the fault of the plate or the press? Harold C. Dethlefsen, president, Process Litho Arts, Inc., indicated that if several thousand impressions are run prior to scumming, then it probably is the press.

Bruno suggested examining the scum to see what type it is. If the scum appears as streaks, then it is probably the fault of the press. If it is over-all, however, chances are it is the plate that is causing it. An important factor often overlooked as a cause of plate scum is paper, he said. Alfred Lackner interjected that if one really wanted to know, put the plate in question on another press of the same size. This would determine whether it is the plate or the press.

A member of the audience said he had trouble with hickies as a result of particles of paper sticking to ink rollers even after washup, thus contaminating the next run with hickies. He asked for advice on how to solve this problem. Lackner said that he thought it was due mainly to sloppy washups, ink drying on the rollers, or improper roller settings. Bruno commented that it is possible that a washup would not remove the particles and advised using a little water to help soften and remove the paper.

The panel was asked what they thought of color scanners for separations. James J. Farrell, foreman, plate department, Inland, Magill-Weinsheimer Co., Chicago, said he thought they were capable of producing good work with a minimum amount of handwork. He did not feel, however, they produced perfect work. He indicated they would be excellent for handling work loads at peak production periods. Bruno feels that the failure of scanners has been due to misunderstanding by plant personnel of the machine's function.

Another member of the audience reported that trouble was experienced in his plant with plates cracking at the bends. What can be done about this? Plates are probably not hugging the cylinder tightly enough and an air space was being created. When on impression, the pressure causes the plate to flex, thus cracking it, Bruno said. Twisting the plate to bring it into register would produce the same result. Bruno advised using a proper jig to make the plate bends before putting them on the press. Farrell suggested increasing the bend area on the trail edge thus allowing the plate to slip farther into the clamp. An individual in the audience said short packing papers would contribute to plate cracking.

In answer to the question of what is the best way to clean magenta screens, Farrell said he found Simoniz cleaner to be the best.

What does one do to prevent ink from chalking on coated paper? Conard E. Dama, superintendent, ink department, I. S. Berlin Press, Chicago, answered this question suggesting use of proper additives such as a gloss binding varnish.

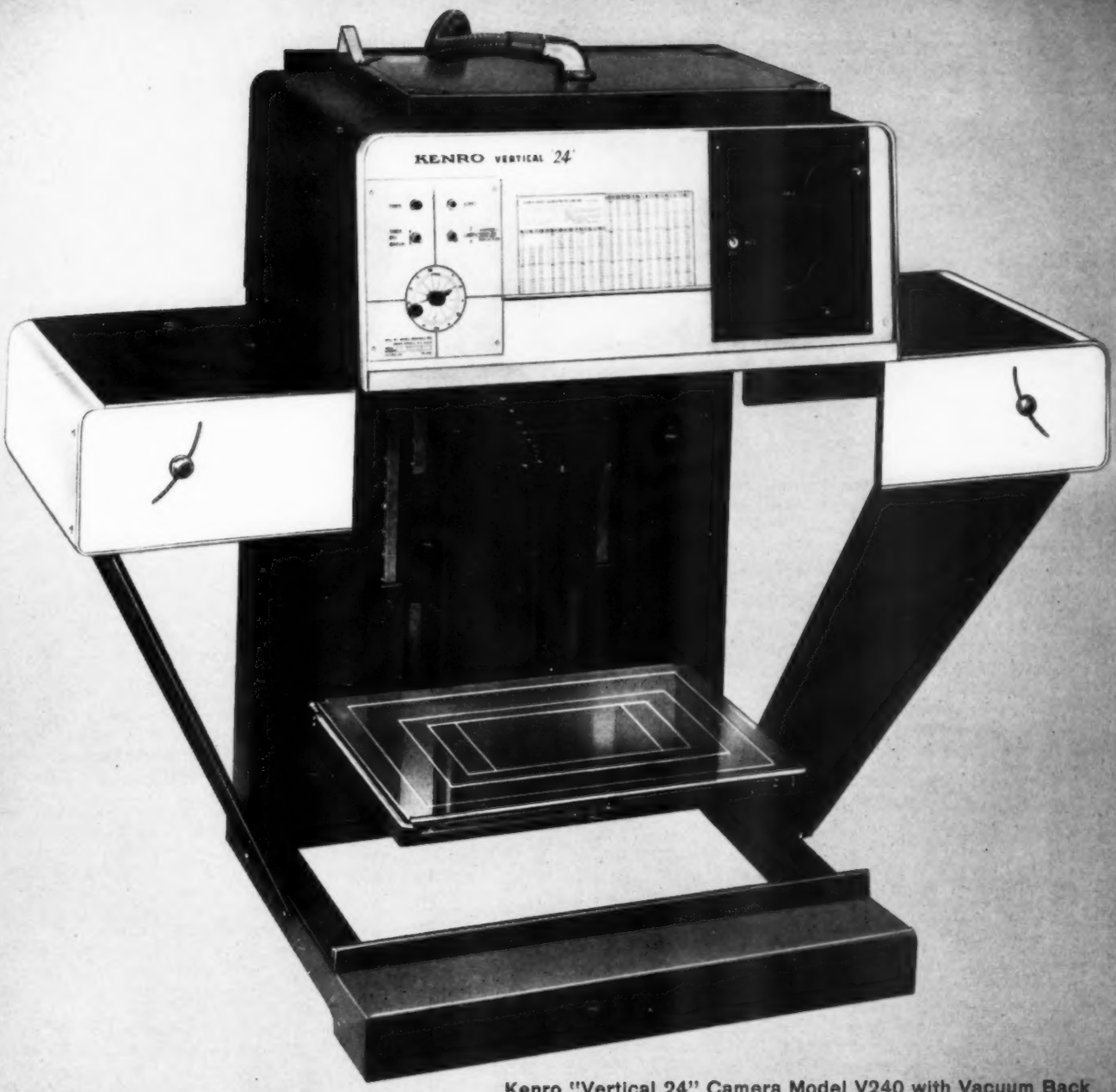
Lanston Industries Moves Into New Monotype House

Lanston Industries, Inc., has moved its administrative and manufacturing facilities into a single level plant called Monotype House in Philadelphia. According to Carl C. Sorensen, Lanston president, the move was made to increase present manufacturing efficiency and to prepare for expected expansion.

Located at G St. below Erie Ave., the new plant encompasses a total of 140,000 sq. ft., and will accommodate approximately 400 employees.

In addition to announcing the move into the plant, Sorensen reviewed other areas of Lanston expansion during the past year. Among the accomplishments listed were: Purchase of Unitronics, Incorporated; acquisition of the U. S. marketing rights to the Italian-made typesetting machine known as Nebitype, and introduction of the Monomatic typesetting line.

Lanston Industries, Inc., has moved into this remodeled Philadelphia plant to be known as Monotype House. Typesetting and photomechanical equipment will be manufactured in the plant.



Kenro "Vertical 24" Camera Model V240 with Vacuum Back

You are looking at a 24″ camera just 48″ high

In more ways than one, the Kenro "Vertical 24" puts a new dimension into the part a camera can play in your production methods. With the vacuum back it produces line or halftone negatives up to four 8½ x 11's or a full newspaper page. With the prismatic head, one of the many interchangeable backs, it produces directly, without negatives, repro quality enlarged or reduced line shots, tints and screened velox prints in positive or reverse form for paste-up or proofing.

It's a giant for work, versatile in application and precise in construction. Goerz lens, G.E. Quartzline lamps and ColorTran converter are standard equipment. Isn't it time you asked your dealer to demonstrate how a Kenro can save you time and money? Write for complete literature.

KENRO GRAPHICS, INC. Dept. G11, Cedar Knolls, New Jersey

For More Information Circle 97 on Reader Service Card

EQUIPMENT AND SUPPLIES

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

TWO PIECE LITHO PRESS BLANKET CLAIMED TO HAVE MANY ADVANTAGES

Introduced during the NAPL convention held recently in Chicago was the Polyfibron offset press blanket. The blanket, developed by Dewey and Almy Chemical Div., W. R. Grace & Co., consists of a blanket backer or carcass, and a removable face.

According to the manufacturer, the blanket backer is made of laminated fabric and rubber, while the blanket face is constructed with a polymer-fiber material claimed to compress without distortion. When pressure is applied, the area under pressure compresses without sideways displacement. The compressibility is also reported to compensate for unevenness in cylinders, plates, stock, etc.

Compressibility is achieved by incorporating tiny air spaces which make up a large proportion of the total volume. It is these air voids which compress under pressure.

Total thickness of the blanket's two parts is said to equal or slightly exceed that of the conventional blanket. The backer is applied first to the cylinder and tensioned. The face is then pressed on the blanket backer under plate pressure, by revolving the offset cylinder one full turn. Cylinder pressure while running maintains adhesion between backer and face. The result is a taut carcass and a relaxed top element.

Other advantages claimed are savings in makeready time since critical packing tolerances are no longer a necessity. The blanket is said not to require rest to recover its original shape, and extended plate life is a result of the blanket's compressibility, which minimizes wear on the plate. Blanket replacement requires only the application of the removable face, the backer lasting through several replacements. If a severe smash occurs which damages the face, it is stripped off and another face applied to the backer. Circle No. 283 on Reader Service Card.

DIRECT READING pH METER

Details of the Model 31 Companion pH meter, manufactured by Coleman Instruments, Inc., have been announced. Equipped with a scale which covers the

entire 0-14 pH range, the instrument is reported to be accurate to 0.05 pH.

The meter is operated by electricity and has a zero restoring circuit which, it is claimed, frees operations from electrical drift. Multiplication of readings by 100 provides millivolt measurements of a range from 0 to 1400. Accessories which are available provide automatic temperature compensation. Reference electrodes require a 3.5 milliliter sample and can be used in containers as small as a 10 milliliter beaker. Circle No. 263 on Reader Service Card.

NEWSPAPER SPLICING ADHESIVE HAS LATEX BASE, IS NONFLAMMABLE

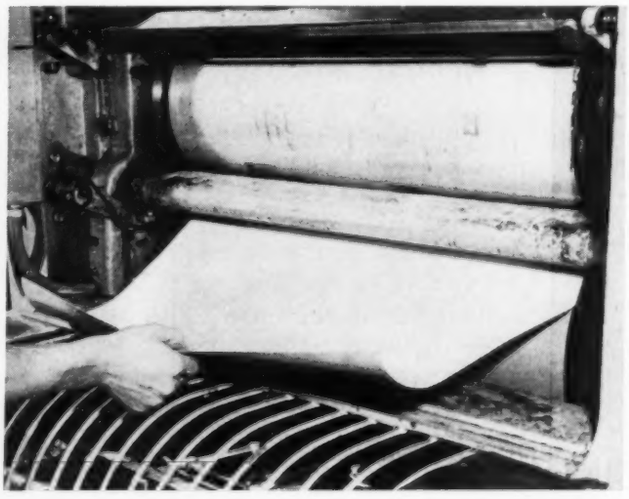
Morningstar-Paisley, Inc., has announced the development of a newspaper splicing adhesive called Reeling Gum 78-125. According to the company, the adhesive has a material base of latex which can be diluted with water.

The manufacturer claims the product is nonflammable, nonpenetrating, nonslipping, will not cause bleeding and can be used on all types of newspaper splicing equipment. Temperature changes do not affect viscosity, it is reported. The adhesive can be used with hand methods of splicing, semiautomatic splicing equipment or flying pasters. Circle No. 255 on Reader Service Card.

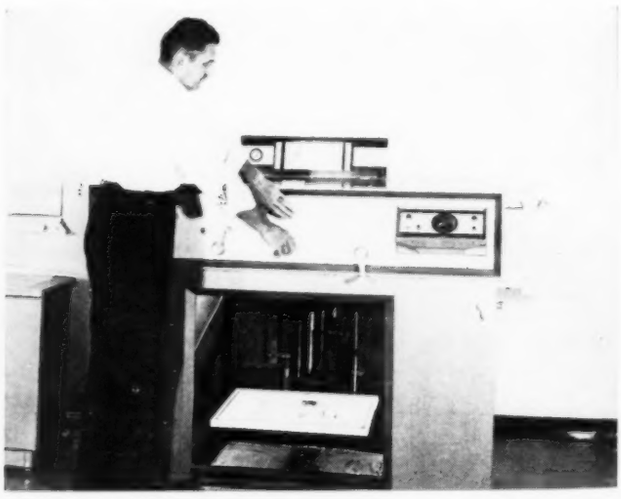
MACHINE REPORTED TO PRODUCE PLATES FROM ORIGINAL IN 2 MIN.

Claims for producing images on aluminum offset plates from originals in less than 2 min. have been made by A. B. Dick Co. According to the company, the Photoplax Camera-Processor Model 175 eliminates the need for film negatives and darkrooms. The unit was developed especially for the user of small offset equipment and contains its own supply of negative paper and a process camera for exposing.

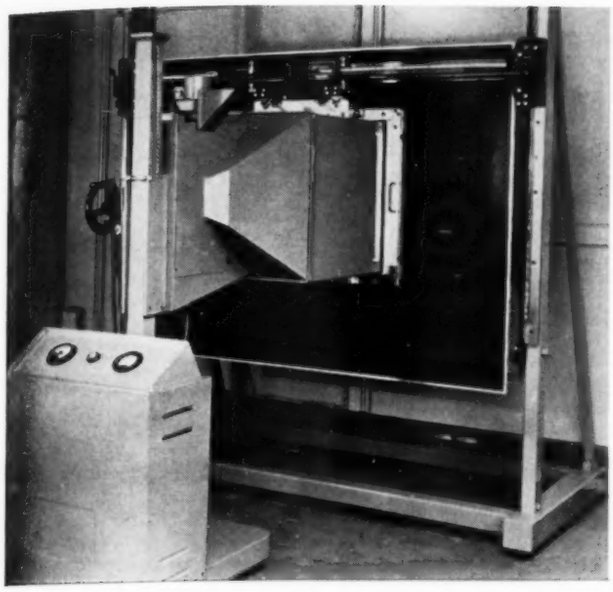
The Camera-Processor consists of three sections: The magazine section in which a 350 ft. roll of negative paper is kept; a camera section containing an 18 in. by 23 in. copyboard, a 12 in. by 19 in.



The two piece Polyfibron blanket manufactured by Dewey and Almy Chemical Div., W. R. Grace & Co., is claimed to have a number of advantages. Here, the removable face is being applied to the blanket backer, already mounted and tensioned on cylinder.



Photoplax Camera-Processor Model 175 produces a plate in less than 2 min., the manufacturer, A. B. Dick Co. states. Designed primarily for the small offset user, the unit produces plates from 10 in. by 15 in. to 10¾ in. to 18½ in.



The ATF-Gerson Multiplater is designed for the small to medium lithographic plant. The step and repeat machine will accept plates up to 42 in. by 54 in. Plate exposure area is 36 in. by 48 in.

nuArc's new table can be used as either a lineup table or register and repeat table. Adjustable stops provide the means for duplicating original layout sheets at any time.

ground glass, an f6.8 Goerz lens, and a calibrated timer; a developing section in which the negative and plate are brought together for processing.

The unit will reduce by 50% or enlarge to 200%. Copy handled by the machine may consist of pasteups, typing, handwriting, and most halftone originals, the manufacturer states. Floor area needed by the machine is 22 sq. ft. Circle No. 284 on Reader Service Card.

ATF PRODUCES STEP AND REPEAT MACHINE FOR MEDIUM SIZE PLANTS

NAPL convention members last month were invited by American Type Founders, Inc., to visit its Chicago office and view for the first time its new step and repeat machine called ATF-Gerson Multiplater.

Primarily designed for the small to medium size lithographic plant, the Multiplater will accept plates up to 42 in. by 54 in. Plate exposure area is 36 in. by 48 in.

The unit consists of a backboard or plateholder, a vertically and horizontally controlled chase, and lamp. Horizontal and vertical movements of the chase are in 1/16 in. increments which are accurate to 0.001 in. The company claims that accidental settings of less than 1/16 in. are impossible.

The lamp is mounted on casters and is completely separate from the backboard, thus allowing the lamp apparatus to be moved completely out of the worker's way when not in use. A current fluctuating transformer, rather than a rheostat is used, thus stabilizing the light intensity irrespective of current fluctuations. Counterbalanced weights are used to raise or lower the lamp. Masking curtains and screens are eliminated since the lamp hood fits into the negative holder chase.

Other specifications include a maximum negative size of 22 in. by 28 in. with a maximum exposure area of 19 in. by 25 in. Accurate plate positioning is insured by means of a three point register system mounted on the backboard. Circle No. 274 on Reader Service Card.

PVA RESIST PERMITS RE-ETCHING, DOUBLE, TINT AND INK PRINTING

Photoengravers were introduced for the first time last month to Chemco Photoproducts Co., Inc.'s Vyna-Top Resist at the American Photoengravers Buffalo Convention.

The product, a polyvinyl alcohol resist for powderless etching, is claimed by Chemco to make operations such as re-etching, double printing, tint printing and ink printing possible with a PVA resist. Two other products, Vyna-Top Print Solution and Pre-Tint, are used in conjunction with Vyna-Top Resist in double, ink and tint printing.

The polyvinyl alcohol is reinforced with a synthetic resist which is claimed to provide a greater resistance and permit preparation techniques for a second plate coating after the first print is made. Circle No. 278 on Reader Service Card.

nuARC ANNOUNCES DUAL PURPOSE TABLES AT LITHO CONVENTION

nuArc Company, Inc., at last month's NAPL Chicago convention announced the marketing of its new dual purpose register and repeat lineup tables. The tables are presently available in three models, namely: Model RR-31; RR-41; RR-52. Glass working areas for the models are, respectively: 24 in. by 31 in.; 31 in. by 41 in., and 43 in. by 52 in.

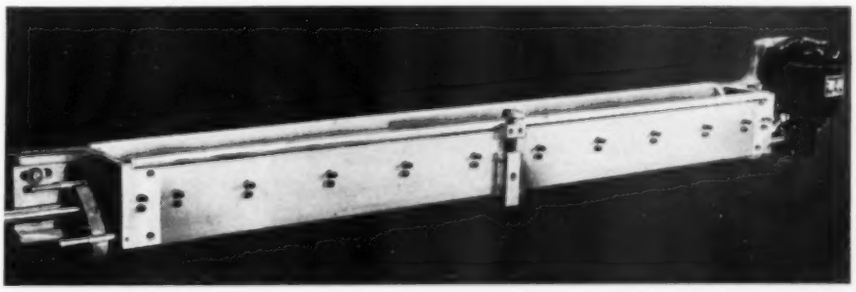
The register and repeat feature has six adjustable stops mounted on removable bars, which run parallel to the gear racks. Stops are set for the original plate, press or bindery layout sheet, then removed and set aside. If at any time it is necessary to scribe new plates or make multiple press sheets, the bars are replaced in position, thus duplicating the original.

Using the stops in the conventional manner, the table becomes a lineup and light table. Features include a storage base, two work holders and side guide, and calibrations on straight edges. Circle No. 275 on Reader Service Card.

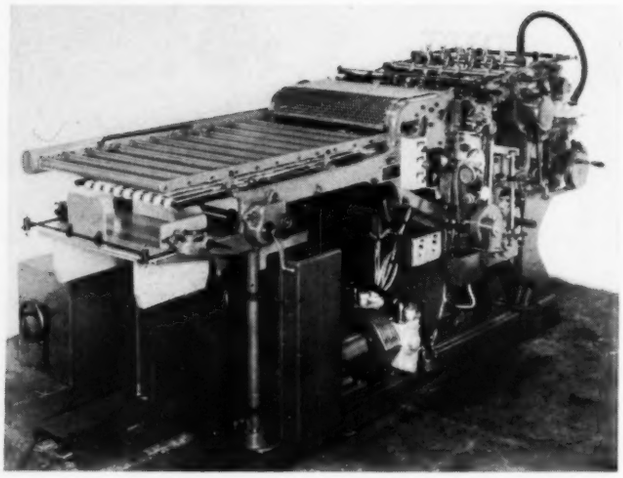
ANTI-OFFSET SPRAY DEVICE USES ROLLERS TO PROPEL POWDER

An anti-offset sprayer called Rotomak is being manufactured by the J. G. Yahnke Co. The anti-offset powder is dispersed by centrifugal force through a pair of rollers, one of which is called a precipitating roller. No air or electrical charge is used to propel the powder, it is claimed.

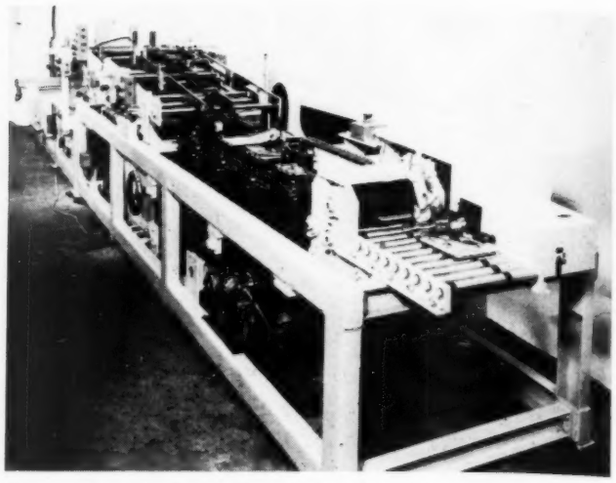
According to the company, the sprayer



Rotomak anti-offset sprayer disperses powder by centrifugal force with a pair of rotating rollers.



The No. 7 Intaglio sheetfed gravure press manufactured by Linotype and Machinery of London is distributed in the U. S. by the Champlain Company, Inc., and features a swing out feeder.



The de Florez horizontal book casing-in machine accepts a range of sizes from 5 in. by 5 in. to 8½ in. by 11 in. The machine is reported to handle books and cases at speeds as high as 5000 per hr.

will handle all grades of powder in an even distribution across the sheet. In addition, it has been announced that powders will be marketed under the name of Silk-In-Feel, which have been specially compounded for the sprayer. Circle No. 276 on Reader Service Card.

PHOTOGRAPHIC PAPER AND DEVELOPER ANNOUNCED AT NAPL CONVENTION

Two products developed by Chemco Photoproducts Co., Inc., and introduced at the National Assn. of Photo-Lithographers convention, were a transparent photographic paper and a two part formaldehyde developer.

The paper, called Powerline Transparent Paper, consists of a special paper treated to be transparent and water resistant. This base is coated with a high

contrast emulsion on which a line image may be photographed. The paper, according to a company spokesman, was designed for those classes of work which do not have critical dimensional requirements and for which a lower cost material might be used.

Powerlith Developer Concentrate is a formaldehyde type developer in concentrate form. It is premixed for exact bath formulation. The concentrate may also be used as a replenisher to bring a used bath back to full strength. The developer is supplied as an A and B concentrate in 5 gal. polyethylene containers. When mixed, this quantity furnishes 20 gal. of developer. Circle No. 285 on Reader Service Card.

CHAMPLAIN TO DISTRIBUTE ENGLISH BUILT SHEETFED GRAVURE PRESS

The Champlain Company, Inc., has announced the availability of a sheetfed gravure press manufactured by Linotype and Machinery of London. The press, named No. 7 Intaglio, has a swing out feeder and is suited for short runs, including art reproductions, labels and decals. Circle No. 270 on Reader Service Card.

PRODUCTION SPEEDS UP TO 1300 I.P.H. CLAIMED FOR SCREEN PROCESS PRESS

One feature claimed by Commander Engineering & Manufacturing Co. for its screen process press is a large table base. Adjustments in the table base permit side to side, rotational, and front and back movements. Vertical movements, allowing for varying thicknesses of material are made by means of a hand wheel.

Ink is picked up at the rear of the screen during the loading process by a power operated ink roller, which applies ink to the screen when in the printing position. A squeegee is mounted immediately behind the ink roller and forces ink through the screen to produce a print. The squeegee adjusts up and down for various pressures and has an angular adjustment from 90 to 30 deg.

Work is held to the table by suction through a multiplicity of small holes in the Formica surface. Suction is controlled automatically by a four-way valve timed to the operating cycle. A timer controls open time of the press and is adjustable from zero to 14 sec.

A metal screen holder operates automatically with the timed operating cycle to permit work to be fed either by hand or mechanical means. Production speeds up to 1300 per hr. are claimed. Circle No. 265 on Reader Service Card.

CASING-IN MACHINE ATTAINS SPEEDS ESTIMATED AT 5000 PER HR.

The de Florez Company has developed a horizontal book casing-in machine for high speed continuous operation.

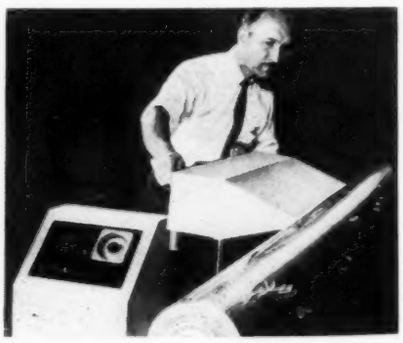
Cases and books are hopper fed with the cases being pasted off rather than the books. The adhesive system is claimed to have been designed to permit precise control, rapid cleanup and the prevention of adhesive drying during stops.

Among other features are devices which register and square books to cases, and pressure rolls for pressing the two together. Devices are installed to eject or prevent a feeding of one item without the feeding of its component.

A low working height of 26 in. is said to facilitate servicing and loading. Speeds are estimated at 5000 per hr. Minimum size accepted by the machine is 5 in. by 5 in., and maximum is 8½ in. by 11 in. The machine is reported to be capable of handling bulks ranging from 1/16 in. to ¼ in., either nonrounded square back or saddle stitched. Circle No. 271 on Reader Service Card.

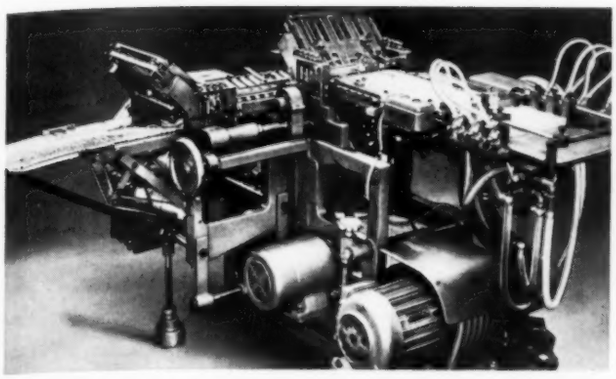
XENON ARC LIGHTS AVAILABLE FOR EXPOSING GRAVURE CYLINDERS

American Speedlight Corp. has added two models of a lighting apparatus to its Ascorlux line of xenon arc equipment. The apparatus has been named Slit Light,

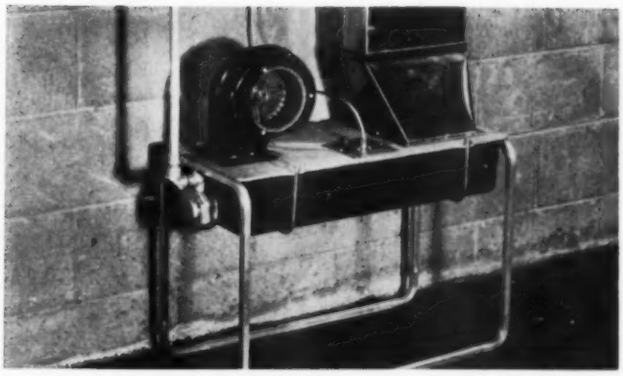


and was designed for use in exposing sensitized material on a rotating gravure cylinder.

Claims of focusing 80% of the radiated light into a ½ in. slit are made for the two models, which are 12 in. and 24 in. long, respectively. According to the manufacturer, the light is of even intensity except for a 20% fall-off at the ends of the tubes. Circle No. 261 on Reader Service Card.



Master Minifold, West German produced folder, has a variable speed drive. Mountings are available for various attachments.



Humid-i-maker, manufactured by Armstrong Machine Works for use in printing plants, adds moisture to dry air by means of a blower.

FOLDER DESIGNED FOR SMALL SHEETS

Master Minifold, a West German manufactured folder designed for miniature leaflets, is being distributed by Super Speed, Inc. Maximum sheet size accepted by the folder is 8½ in. by 11¾ in., and minimum size is 2 in. by 2¾ in. Narrowest fold which can be made is 9/16 in.

Equipped with a stream suction hopper feeder, the folder is said to be capable of feeding any type of stock. Folding rollers are of serrated steel and are adjustable to each other by means of screws. Its four fold plates, which are nickel plated, allow a maximum of eight folds (four parallel and four right angle folds). Setting gauges for the plates have coarse and fine adjustments. Circle No. 280 on Reader Service Card.

MAILINGS SPEEDED WITH LABEL SCANNING MACHINE

Problems in handling cancelled address labels (called nixies) in direct mailing operations has troubled the Reuben H. Donnelley Corp. as well as others involved in this type of work. The Donnelley organization utilizes continuous strip address labels which would be marked when a cancellation or change occurred. This system necessitated the sorting and hand removal of cancellations after label application. Hand removal, in addition to being costly and time consuming, often created bottlenecks in mechanical mailing operations. Changes of addresses required relabeling prior to mailing.

In an effort to overcome these drawbacks to the system, Donnelley commissioned Cheshire, Incorporated to design a machine which would automatically eliminate application of cancelled address labels, yet maintain high speed labeling production. As a result, a machine was developed which photoelectrically scans the strip of address labels to locate nixies.

The cancellation mark on the nixies causes the feeder to stop so that the label is not applied, and triggers a mechanism which cuts and discards it into a trough. The machine is said to handle all types of address labels. After discard, the labeling machine automatically resumes operation. Circle No. 259 on Reader Service Card.

AUTOMATIC WIRE TYING MACHINE

A wire tying machine for bundling newspapers, catalogs, and other publications and for reinforcing and closing corrugated cartons and wooden boxes has been announced by A. J. Gerrard & Co.

Designated Model 3001 Autobinder, the machine uses 13 ga. to 18 ga. round steel strapping and makes up to 26, 3½ twist ties per min. Packages ranging from 2 in. to 23 in. high and 8 in. to 36½ in. wide are handled by the unit.

Micro switch controls and a power conveyor table permit packages to be fed automatically into the Autobinder. The feed-in conveyor moves at a rate of 14 in. per sec.

The Autobinder is mounted on casters. A compressed air supply of 30 p.s.i. to 80 p.s.i. is required by the unit. Motors for the machine and its conveyor table operate on 220 V. or 440 V., 60 cycle current. Circle No. 288 on Reader Card.

A. J. Gerrard & Co.'s Model 3001 Autobinder was designed for bundling newspapers and catalogs, and for reinforcing and closing cartons.

HUMIDIFIER FOR PRINTING PLANTS

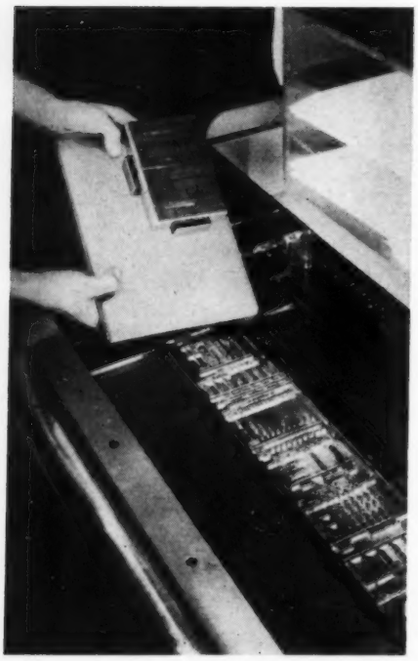
A humidifier has been developed for Graphic Arts plants where steam is unavailable or where its use would be impractical, according to its manufacturer, Armstrong Machine Works.

The Humid-i-maker consists of a water tank, level control, heating element, blower and humidistat. In operation, the machine is set for the desired relative humidity. The humidistat activates the blower when the rh drops below this setting, which then blows air over the heated water in the tank. The air picks up moisture and carries it to the space to be humidified. When the desired humidity is reached, the humidistat stops the blower.

Tank water is heated by hot water from storage or boiler, or by an electric heating element. Water level is kept constant by an automatic float control. The Humid-i-maker's capacity is said to be 16 pts. of water per hr. Circle No. 281 on Reader Service Card.

MAGNETS ELIMINATE STRING FOR TYING UP JOBS

Locking magnets designed for holding type matter for proofing without tying up forms have been made available by Printing Machinery Co. The Sterling Locking Magnets, as they are named, are 2⅛ in. long, ½ in. wide and ¾ in. high. Other uses for the magnets in-



clude copy holding at a machine, as a guide for ejected linecast slugs, for proofing single slugs, holding oil sheets for register, etc. Circle No. 273 on Reader Service Card.

CONTROLS PROVIDE AUTOMATIC CORRECTION FOR WEB EQUIPMENT

Electronic and mechanical register control components for web processing of all types of materials such as paper, plastic, film, board, foil, metal, etc., are being marketed by Machine-O-Matic, Inc. The register control systems are available in several models depending upon tolerances desired.

A complete system consists of a photoelectric scanning head which reacts to either transmitted or reflected light. When the web is out of register, the head will notify a selector switch which calculates the necessary correction. This activates a correction motor which supplies power to mechanical correction devices. Other pieces in the system are a control panel and various components which provide physical correction when such provisions are lacking on original equipment. These controls may be installed on either new or old equipment, the manufacturer states. Circle No. 250 on Reader Service Card.

HAND TACHOMETER FOR CHECKING RPM

A hand tachometer, named Series 27 Tripletach, manufactured by Metron Instrument Co., features a sealed meter movement, printed circuits, speed pick-up and a retractable cord.

The meter is available in three types: Type A—200 to 10,000 r.p.m.; Type B—100 to 5000 r.p.m.; and Type C—20 to 1000 r.p.m. In addition, fine readings within these ranges can be made by a thumb switch which controls three scales. Accuracy is reported to be ±1% of full scale deflection.

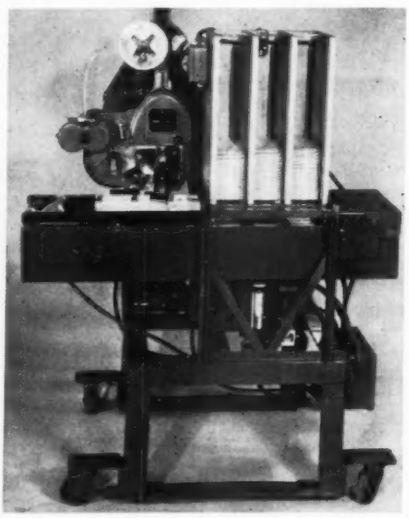
Accessory equipment includes adapters for extending ranges and using the instrument in cramped quarters as well as a disc for direct measurement of surface speeds. Circle No. 277 on Reader Service Card.

WALBAUM TYPE ON AMERICAN POINT BODY

The Walbaum type face family is available on standard American point body from Amsterdam Continental Types & Graphic Equipment, Inc. Designed and manufactured by H. Berthold Foundry of Berlin and Stuttgart, Walbaum is available in regular weight in 6 pt. to 36 pt. sizes; italics, 6 pt. to 30 pt., and semibold, 6 pt. to 36 pt. Each style offers small and large 10 pt. sizes. Specimen sheets are available. Circle No. 289 on Reader Service Card.

MACHINE STITCHES AND STACKS CARD SETS AUTOMATICALLY

A machine caled Model G1-N3A3/4 has been manufactured by Acme Steel Co. to stitch and stack tab card sets. As the



numbered and counted sets are conveyed from the press, the operator places them on a moving chain which feeds into the stitcher, then to the stacker. Two stitches are placed in each set on 2 in. centers at a rate claimed to be 40 sets per min.

Card sets 3¼ in. wide in lengths of 5⅞ in., 7⅞ in. or 8 9/16 in. can be stitched into books up to ¾ in. thick. The Model G1 has been designed to handle the production of a three stream press.

When three books have been accumulated in the stacker, the stitcher head stops while the books are lifted into the stacker. This compartment is designed to hold the number of card set books that will fit into the standard carton for this industry. Dimensions of the machine are 2 ft., 11½ in. by 2 ft., 4 in. by 4 ft., 4⅛ in. Circle No. 260 on Reader Service Card.

KODALITH DEVELOPER IN LIQUID FORM

Eastman Kodak Co. has announced the availability of Kodalith Liquid Developer. Packaged in Cubitaners, the concentrated developer is to be marketed in two sizes: One 2 gal. package containing both solutions of A and B will make 8 gal. of fully mixed developer; a 5 gal. size in which the A and B solutions are packaged separately, will yield 40 gal. of developer.

A long shelf life is claimed for the concentrate and tray life is said to be as long as that of powder developers.

ELECTRIC TRUCK HAS 2000 LB. CAPACITY

An electric industrial truck designed for maneuverability with short turning radius for efficiency in narrow aisles, has been manufactured by Elwell-Parker Electric Co.

Capacity of the truck, which is known as F-26TA-2, is 2000 lbs. Another model in the same series is available with a 3000 lb. capacity.

Inner uprights and elevator carriage are roller mounted to reduce wear and power loss. In addition, the truck is equipped with automotive type controls. Among other features claimed by the company are: Worm drive, twin tilt cylinders, hydraulic wheel brakes, safety controls, caster trail axle and a center sill frame. Circle No. 279 on Reader Service Card.

WHITER PAPERS OFFERED BY EASTERN

According to Eastern Fine Paper and Pulp Div., Standard Packaging Corp., seven of its paper lines are claimed to be manufactured with a brighter and more fluorescent blue white appearance. Included are the Atlantic line of bonds, duplicators, mimeo bonds and offset papers. In addition, the Manifest line of bonds, duplicators and mimeo bonds also carry the whiter appearance. Circle No. 254 on Reader Service Card.

XENON ARCS MARKETED FOR BACKLIGHTING TRANSPARENCIES

A lighting unit designed for backlighting transparencies and negatives has been added to American Speedlight Corp.'s line of Ascorlux xenon arc equipment. Called Box Light Model L1124, the lighting unit is recommended where evenness of light coverage is required or where sufficient light is needed to penetrate through heavy masking or filtering. Four tubes are arranged around the sides of the light box. The model covers an area 24 in. square. Circle No. 287 on Reader Service Card.

CLAIMS IMPROVED BOOKBINDING MACHINE

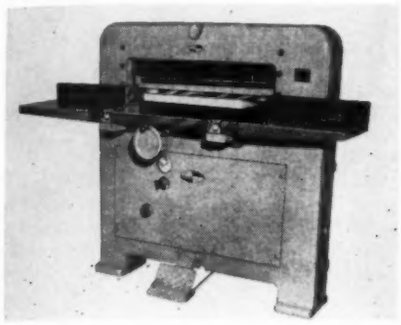
Three developments have been announced by Printing Industries Equipment, distributors of the German-made Kolbus line of bookbinding equipment. One machine is a nipper-gluer in which books are first nipped with hydraulic clamps, then glued and dried. The manufacturer claims it is not necessary to nip books after gluing.

Another development by the Kolbus firm has been the equipping of its cloth cutter with a tape delivery, adjustable

for either continuous or inch feeding. The last development is a backlining and headband machine designed to handle double lining crash at what is described as high speeds. All models have variable speed drives. Circle No. 251 on Reader Service Card.

CHALLENGE 30½ IN. POWER CUTTER

Introduction of a 30½ in. power paper cutter has been announced by the Challenge Machinery Co. Called Champion



Model 305MB, the cutter was designed for the printer outgrowing either slower hand clamp or lever cutters.

Power clamping on the Model 305MB is foot controlled. Push button controls provide a safety feature since both hands are needed to operate them. Other features include an automatic knife return, and a paper guard, claimed to make trimming narrow jobs easier. Circle No. 290 on Reader Service Card.

WEST GERMAN HALFTONE SCREENS

Amsterdam Continental Types & Graphic Equipment, Inc., have announced the distribution of West German manufactured EFHA halftone screens.

Rectangular models are available in various sizes ranging from 5 in. by 7 in. to 32 in. by 40 in. Glass engraved screens range in diameters from 13½ in. to 52 in. covering areas from 8 in. by 10 in. to 32 in. by 40 in. Circle No. 266 on Reader Service Card.

INFRARED HEATER DRIES PRINTING INKS

The drying of screen process and other printing inks has been claimed as an application of an infrared radiant heater manufactured by the Quartz Radiation Corp. Called the R-600, the heater was designed for a tubular quartz element having a peak infrared emission of 2.3 microns, a wavelength said to be most completely absorbed by solvents.

The heater housing is made of aluminum and can be furnished in any length. The reflector is treated to prevent loss of reflectivity due to oxidation. Heating elements for the R-600 have been designed, according to the manufacturer, to have a low visible emission with no objectionable glare. Circle No. 291 on Reader Service Card.

VERTICAL CAMERA DESIGNED FOR EKTALITH AND GEVAERT PROCESSES

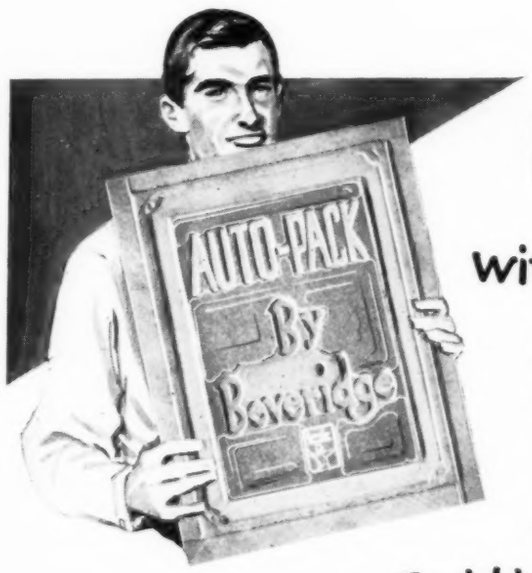
A vertical camera is being sold by Lacey-Luci Products, Inc., which was

specifically designed for the Ektalith and Gevaert copy processes. The Vertical 14 camera may be used as either a darkroom or gallery camera.

Copyboard area is 18 in. by 24 in. and enlargement-reduction capacity is 250%. An automatic reset timer is included. The camera has a height of 42 in., a width of 54 in. and a depth of 28½ in. It may be purchased with a pressure back, Ektalith head or vacuum back. Circle No. 269 on Reader Card.

BLANKET HARDENER SAID TO REDUCE TACK AND PICKING

Rogersol JK-162 Blanket Hardener, manufactured by Harry H. Rogers Co., Inc., is a chemical which has been developed to eliminate tack from lithographic blankets. The company claims it will also reduce curling and picking of coated stock and will reduce dot slur and spread



If You Start with....

NEW AUTO-PACK MATS

with these features...

- one piece packless mat
- 50% compressible
- molding pressure same as standard mats
- retains 0.030 to 0.035 space depth from 0.040 form depth
- easier to use than conventional mats
- proved efficiency in hundreds of field tests

You're Sure to End Up with...

OUTSTANDING REPRODUCTION PLATES

Write today for complete information, samples or demonstration.

THE BEVERIDGE PAPER COMPANY

705 W. Washington, Indianapolis 4, Indiana • Telephone MElrose 5-4391

For More Information Circle 20 on Reader Service Card

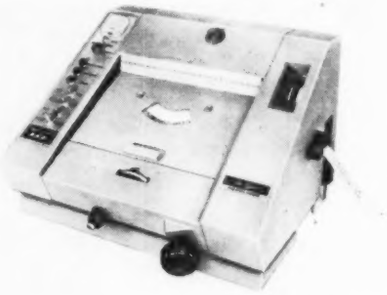
when applied locally to screened areas adjacent to solids. Other claims for the product include the prevention of excessive trapping and control of static. Circle No. 282 on Reader Service Card.

PUNCHING AND BINDING IN ONE UNIT

A 12 in. machine that performs both punching and plastic binding operations has been announced by General Binding Corp. Known as the Combo Punch & Binder, the unit is portable. A single control unit sets the machine for either punching or binding. Booklets of any size may be handled by the Combo because the unit has open ends. Manufacturer recommends the unit for use in binding technical data, catalogs, booklets, manuals and literature. Circle No. 294 on Reader Service Card.

HEADLINER PHOTOCOMPOSITION MACHINE ALLOWS MULTIPLE LINE COMPOSING

VariTyper Corporation has added another model to its line of Headliner



photocomposition machines. Called Model No. 840, it is capable of delivering exposed and developed 35 mm. paper or film proofs in multiple lines.

Enlargements up to 15 diameters without fuzziness are claimed by the manufacturer. Character selection is achieved through a dialing system, and exposure, development, washing and fixing are self contained and automatic.

The machine allows return of the exposed material to its starting point so another line may be added. Type faces are changeable and are available in sizes ranging from 18 to 72 points. Circle No. 272 on Reader Service Card.

SCREEN PROCESS STOCK HAS PREAPPLIED TAPE FOR MOUNTING

A screen process stock called Tape-Stik, which is edged with two-sided ¾ in. tape for mounting purposes, is being marketed by distributors of Kleen-Stik Products, Inc. The stock is said to be waterproof with excellent outdoor characteristics, and can be silk screened on either side.

Available in two sheet sizes, 15 in. by 24 in., and 18 in. by 20 in., the stock has the tape applied to the longer sides. Circle No. 293 on Reader Service Card.

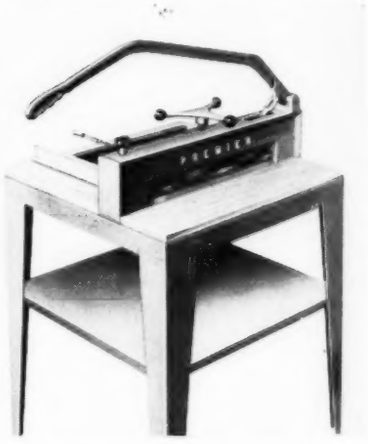
BURR FLATTENING ATTACHMENT FOR PERFORATING MACHINE

Now being offered as optional equipment on Perf-A-Matic machinery, manufactured by Pierce Specialized Equipment Co., is a burr flattening attachment. The attachment consists of two steel rollers which are chain driven in timing with the perforator shafts.

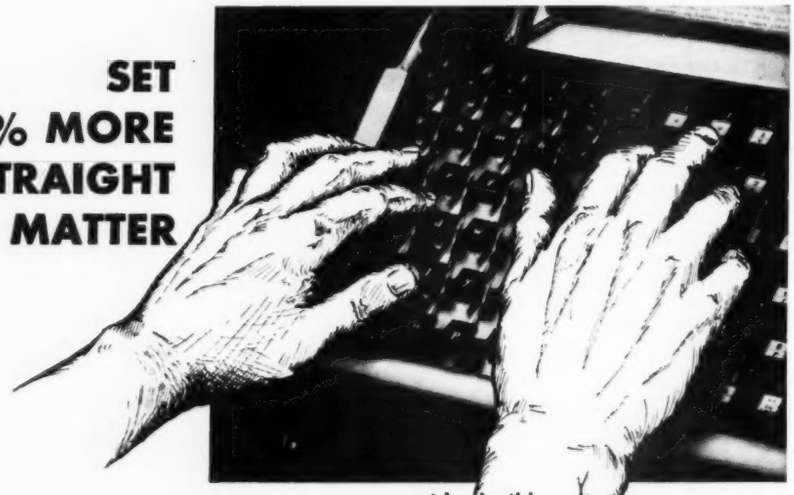
Pressure adjustment screws are located on either end of the rollers and allow the desired amount of tension to be set. Use of this attachment, it is claimed, increases control of the sheet on delivery and reduces humping. Circle No. 257 on Reader Service Card.

REAM CUTTER WITH CENTER GUIDE

The Premier ream paper cutter featuring a center supported guide (back stop) has been announced by Martin-Yale, Inc.



The cutter will reportedly cut paper up to 2 in. thick and 18 in. wide. Other features of the cutter include: over-all size of 26 in. by 26 in.; a cutting scale calibrated in increments of 1/16 in., and automatic handle lock that prevents the blade from operating until the safety catch is released. Circle No. 292 on Reader Service Card.



SET 6% MORE STRAIGHT MATTER

with legible StarNews

for news and general text composition

SPECIMEN ALPHABETS

ABCDEFGHIJKLMNOPQRSTUVWXYZ
ABCDEFGHIJKLMNOPQRSTUVWXYZ
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz 1234567890
abcdefghijklmnopqrstuvwxyz 1234567890
abcdefghijklmnopqrstuvwxyz 1234567890
fiffffffffl ¼½¾ [($£.,:;'-'?!*†‡§¶/|%)]
fiffffffffl ¼½¾ [($£.,:;'-'?!*†‡§¶/|%)]
fiffffffffl ¼½¾ [($£.,:;'-'?!*†‡§¶/|%)]

8☆A311—runs in 90 channel magazine.
Lower case alphabet.....110.6 pts.
Lower case characters per pica.. 3.05
Figure size ..... .0518
Comma, period, thin space..... .0346
8☆A313—runs in 90 channel magazine.

Write for specimen folder and complete details on both StarNews with bold face and StarNews with gothic.

StarNews, for tape and manual casting, is designed to meet today's demands for narrower column widths, without sacrifice of legibility. Its more condensed alphabet length will result in about 6% **more** news matter, as compared to many standard 8 point faces now used by newspapers. With a lower case alphabet length of 110.6 points, StarNews permits setting from news service tape on column measures from 11 to 11½ picas depending on the size spacebands used. StarNews is ideal, of course, for pamphlet, book and publication work. (Text in 8 Pt. StarNews)

STAR PARTS, Inc.
SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO. AGENCIES: CHICAGO • MINNEAPOLIS • LOS ANGELES • DENVER • SO. ACTON, MASS. • STAR PARTS (LINECASTING) CANADA LTD. MONTREAL AND AGENTS OVERSEAS.

Precision TRADE ★ MARK Parts

For More Information Circle 168 on Reader Service Card

This postage-paid card is for your convenience in requesting further information on any editorial item or advertisement in this issue of PRINTING PRODUCTION. Circle the number for any item or advertisement. Your request will be promptly sent to the manufacturer for which it is intended.

Card not valid unless complete information is given below

Name _____

Title or Department _____

Company Name _____

Company Address _____

City _____ Zone ____ State _____

This card valid up to one month after:

NOVEMBER '60

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165
166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
196	197	198	199	200	201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280	281	282	283	284	285
286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315
316	317	318	319	320	321	322	323	324	325	326	327	328	329	330
331	332	333	334	335	336	337	338	339	340	341	342	343	344	345
346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370	371	372	373	374	375

Tear out the inquiry card . . .
As you read, circle the product numbers about which you want more information. Each inquiry receives individual attention by trained Reader Service Department personnel. Be sure to fill in your title and/or department.

USE THE READER SERVICE CARD FOR MORE INFORMATION. IT'S EFFICIENT, FAST AND EASY.

This postage-paid card is for your convenience in requesting further information on any editorial item or advertisement in this issue of PRINTING PRODUCTION. Circle the number for any item or advertisement. Your request will be promptly sent to the manufacturer for which it is intended.

Card not valid unless complete information is given below

Name _____

Title or Department _____

Company Name _____

Company Address _____

City _____ Zone ____ State _____

This card valid up to one month after:

NOVEMBER '60

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165
166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
196	197	198	199	200	201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280	281	282	283	284	285
286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315
316	317	318	319	320	321	322	323	324	325	326	327	328	329	330
331	332	333	334	335	336	337	338	339	340	341	342	343	344	345
346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370	371	372	373	374	375

FIRST CLASS
PERMIT NO. 2285
CLEVELAND, OHIO

BUSINESS REPLY MAIL

No Postage Stamp Necessary if Mailed in the United States

Printing Production Magazine
1276 West Third Street
Cleveland 13, Ohio

Reader Service Department

FIRST CLASS
PERMIT NO. 2285
CLEVELAND, OHIO

BUSINESS REPLY MAIL

No Postage Stamp Necessary if Mailed in the United States

Printing Production Magazine
1276 West Third Street
Cleveland 13, Ohio

Reader Service Department

PRINTING INDUSTRY PATENTS

Covering patents issued August 2, 9, 16, 23 and 30.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

STRIP MATERIAL CASTER

The caster is for use with conventional linecasting machines and eliminates the undesirable swirl of present practice by providing for evenly and continuously forcing constantly high pressured molten metal into the casting chamber. Thus the printing face is cast uppermost and the delivering of the strip to the receiving tray in this position removes possibility of damage to the printing face during its travel through the machine. No. 2,947,044 by Andrew J. Sitton, assignor to Sitton Industries, Inc.

IDEOGRAPHIC COMPOSING

The machine is designed for composing Chinese and other ideographic languages. The selection of each typographical character is made by a multiple key operation, the keys being operated in a sequence which duplicates the sequence of strokes used in writing the character by hand, this sequence being dependent on only an ordinary knowledge of the written language. No. 2,950,800 by Samuel H. Caldwell, assignor to Graphic Arts Research Foundation, Inc.

PHOTOCOMPOSING MACHINE

To detect the non-advance of a film in a photocomposing machine, this invention uses a film on one edge of which a succession of reference marks of electrical conducting material has been formed. An electric contacting mechanism is also provided to operate in conjunction with the reference marks and as soon as film fails to advance a line, this electrical contacting device will operate to stop the machine. No. 2,948,-203 by William A. Hadley and Daniel H. Robbins, assignors to Mergenthaler Linotype Co.

NOLAN NEWS

NOLAN CORPORATION — ROME, NEW YORK

Less Vibration, More Accurate Work With NOLAN *"Motor-in-Head" Router!*

FOUR MODELS . . . ONE'S JUST RIGHT FOR YOU

Few production jobs are more demanding for speed and accuracy than routing. With a new NOLAN radial router, you are assured of both . . . and it costs amazingly little! Direct motor drive means higher efficiency, lower operating costs. The motor acts as a stabilizer, keeping vibration to a minimum. And because there are no belts to wear or slip, no unnecessary parts to wear, maintenance is far less, too! Production and profits are up . . . with a NOLAN router!

NOLAN'S heavy duty router features one h.p. "motor-in-head" design, balanced radial arm for easy operation.

BIG FURNACE FEATURES AND RESULTS . . . SMALL FURNACE PRICE!

Yours with a Nolan Furnace and Melt-Lift Production Partners for Remelt Profits!

All these Big Furnace Features . . . automatic temperature control, positive action bottom pouring valve . . . space saving design, protective cover hood . . . at small furnace price! Now . . . more than ever, NOLAN'S "design for savings" can slash your remelting costs in half . . . starting today.

NOLAN 1-ton remelt furnace with Melt-Lift automatic loader quickly pays for itself.

WANT MORE INFORMATION?

Mail coupon for complete details on how these quality NOLAN products can help in your work.

NOLAN CORPORATION • ROME, NEW YORK

Please send full information on:

Nolan Routers ..... Nolan Remelt Furnaces and Automatic Loaders .....

Name .....

Company .....

Address .....

.....

For More Information Circle 214 on Reader Service Card

LINOTYPE MAGAZINE RACK

The rack is adapted to be installed close to a wall and incorporates an upright standard which carries numerous swingable rack arms on which matrix magazines may be supported in face to face relation and in a comparatively small space. Each magazine can be placed or removed without disturbing other magazines. No. 2,947,424 by Franklin E. White.

KEYBOARD FOR AUTOMATIC COMPOSING MACHINES

Patent features a system for recording information to control an automatic composing machine and it includes a keyboard provided with a set of principal keys and a set of service keys, and a set of type bars selectively actuable by either set of keys. This makes it possible to provide many more keys than in an ordinary machine without adding character bars and without increasing the dimensions of the set of characters. No. 2,947,357 by Georges Pierre Bafour and Andre Rene Blanchard and Francois Henri Raymond.

TYPECASTING AND COMPOSING

The machine is a Monotype and features a mold blade control including an abutment to limit opening movement of the mold blade and manually operable mechanism to adjust the position of the abutment. An adjustment indicator includes a unit indicating wheel and a fraction indicating wheel. No. 2,947,,411 by Wade H. Patton, Wade H. Patton, Jr. and Artur Roth, assignors to Lanston Monotype Machine Co.

Platemaking:

PLATED INTAGLIO FORM

Original subject matter is electro-optically scanned in successive elemental areas to produce corresponding electric voltages whose amplitudes represent the shade of graduations of the corresponding scanned areas; these voltages are stylus-applied to an electro-responsive layer in the nature of a film-forming resin, plastic, or elastomer, which has been previously attached to the surface of a metal printing plate or roll. No. 2,951,019 by Harold R. Dalton.

DIAZOTYPE COPIER

Intermediate copies for correction work and additional copying are prepared by coating a light transmitting base material with a light sensitive composition which will form after exposure and development a yellow to greenish yellow image including a light sensitive diazo compound and 3-methyl-6-ethyl-4-morpholino-methyl-phenol as an azo dye coupling component. No. 2,946,684 by Oskar Sus and Heinz Schlesinger, assignors by mesne assignments, to Keuffel & Esser Co.

RESOLVING COLOR SEPARATION

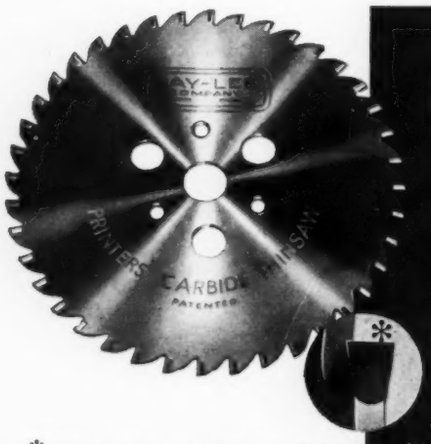
The apparatus permits the comparison of three color components, picture point by picture point, and the smallest component which supplies, unchanged, the black component of the four-color separation, is thereupon subtracted, from the two other color components and the two remaining color components are increased as a monotonic function of the smallest color components with the increase in the slope, these increased residual color components giving the two color components of the four-color separation which corresponds to their color. No. 2,949,499 by Fritz-Otto Zeyen and Wilfried Pawlowski, said Zeyen assignor to Dr.-Ing. Rudolf Hell Kommanditgesellschaft.

FORMING COMPOSITE PLATES

The apparatus is adapted for forming a composite plate in which the back may be of flexible metal, such as stainless steel or aluminum, and the top surface may be of magnesium or zinc for etching and printing. Apparatus uses a saddle for holding plate and a draw sheet for wrapping or bending plate onto saddle. No. 2,948,327 by Ellwood J. Horner, assignor to R. Hoe & Co., Inc.

COLOR SEPARATION RECORDS

For making color process printing plates for use in the Graphic Arts to reproduce pictures in natural color, this apparatus makes high fidelity, corrected color separation records in accordance with the principle disclosed in Patent 2,567,240. The device is completely automatic and obviates the need for a highly skilled op-



GAY-LEE
CARBIDE TIPPED
THINSAW
CUTS ALL
COMPOSING ROOM
METALS
Stays sharp longer!

*Carbide tip has circular seat that provides more brazing surface, positive seating and greatest holding strength. Patented, manufactured under license.

You get everything you want in a Gay-Lee Printer's CARBIDE Thinsaw. Thinsaws made by Gay-Lee are 6 points thin for delicate work yet cut fast and accurately. There is no bothersome sticking pile-up or scream. Every cut is smooth, fast, and accurate.

Gay-Lee puts the finest materials and workmanship into its saws. The CARBIDE tip is set in a patented circular seat and is securely held to the steel body. It offers more brazing area, gives cleaner cuts with excellent backrake cutting and generally eliminates the need for trimmer blades.

Now that you know why a Gay-Lee Printer's CARBIDE Thinsaw is the finest available, order one for your shop on Gay-Lee's 30-Day FREE Trial Offer.

GAY-LEE THINSAW BLADE
for Mohr Lino-Saws

Through the research facilities of the Gay-Lee Company, a new saw blade has been developed specially for linotype machines. This new saw reduces noise of operation, cuts cleaner and faster and lasts longer than any other blades of this type heretofore available.

These saws are available from your local printing supply distributor or direct from the manufacturer.

GAY-LEE OFFERS YOU BOTH SAWS
ON A 30-DAY FREE TRIAL OFFER!

GAY-LEE COMPANY
CLAWSON • MICHIGAN
. . . Standard the World Over

erator. No. 2,951,116 by Benjamin L. Sites and Frank R. Paschke, assignors to Miehle-Goss-Dexter, Inc.

RETOUCHING INTAGLIO ETCHINGS

The method is carried out by changing the depth of etching cavities in the area to be retouched either by applying an insulating layer to the lands and changing the depth of the etching cavities by galvanic etching or by changing the height of the lands by precipitating metal thereon, depending on the type of metal used in the plate. No. 2,950,181 by Lambertus H. Bosman, assignor to N. V. Quod Bonum.

Printing Presses:

PLATE HOLDER FOR PRESSES

The holders are designed for locking printing plates onto the plate cylinder of a rotary printing press and to so organize the parts as to permit extreme flexibility in arrangement of plates on the cylinder, reduction of interplate space to permit heavier loading of cylinders, and individual adjustment of clips and spacer lugs to permit accurate alignment of the plates in multicolor printing. The plate cylinder is provided with parallel, longitudinal continuous channels to receive plate clips and side lug spacer blocks. Nos. 2,950,678 and 2,950,679 by Gilbert S. Krohn, Robert G. Neuhaus, and Charles F. Ahlgrimm, assignors to R. R. Donnelley & Sons Co.

"This company is employee owned."

PRINTING TRIP PRESS

The trip takes the form of an improved hydraulic transmission which is arranged to transmit in timed relation to the operation cycles of the machine for actuating the printing and impression components, the inking mechanism, the moistening motion in the case of a lithographic machine and the sheet-taking mechanism. No. 2,950,674 by Harold M. Taylor and Derek A. Stevenson, assignors to R. W. Crabtree & Sons, Ltd.

SCREEN PRINTING APPARATUS

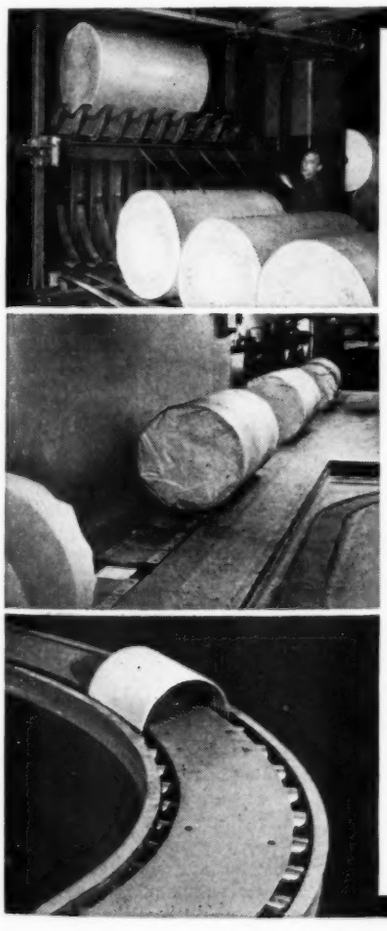
Either a web or sheets of paper may be screen printed with this apparatus in which material to be printed is supported during the printing stage on a back-up roll and thereafter supported between an associated endless belt conveyor and the continuous screen to the point of discharge. The spraying device is reciprocated axially of the back-up roll. No. 2,949,847 by Plouton G. Clonis and James A. McDorman.

SPRAY DAMPENING SYSTEM

The improved features of this dampening system include the control of the amount of spray reaching the plate cylinder across the entire length of the cylinder; the automatic cutoff of the spray at the cylinder gap; the control of the size of the particles of the dampening spray; and to effect the above advantages by means of an improved, less complicated apparatus. No. 2,949,850 by Charles H. Borchers, assignor to Lithographic Technical Foundation.

PRESS COLOR REGISTER

A drive for the rollers and cylinders of a multi-color newsprint printing press permits adjustment of the position of a printed image relative to printing stock. This is accomplished by means of a novel arrangement of sprockets, bell crank and sprocket chain members. No.



Prime mover for
NEWSPRINT ROLLS OR STEREOPLATES

Up...down...or horizontal—whatever your conveying problem, there's a Gifford-Wood unit or system *already in use* that comes close to meeting your problem.

For years G-W has solved big specialized handling jobs for newspaper plants. Electric and pneumatic drops and lifts for newsprint rolls (top photo)...horizontal conveyors...and automatic interfloor handling systems for stereoplates (bottom) have all been built and installed in the plants of daily newspapers and leading printers. And all are operating successfully today, with speed, efficiency, savings, and complete protection for paper rolls and stereos.

Ask a good engineer about Gifford-Wood conveying systems for newsprint, stereos, magazines, mail sacks, bundles, or broke. Then write for full details on actual G-W installations.

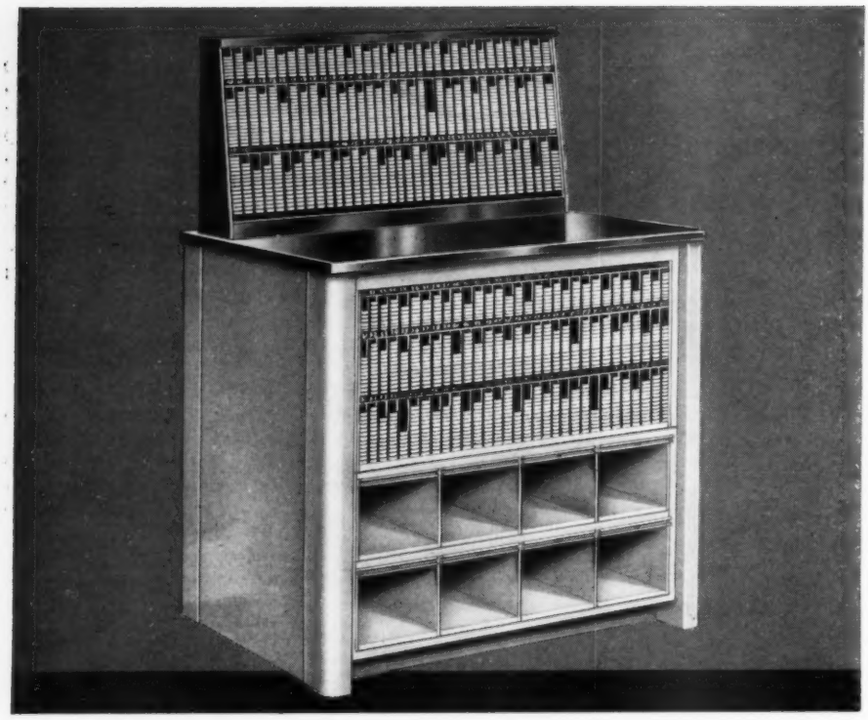
Write today for G-W's new brochure on engineered materials handling systems for the paper and printing industries. Or ask your nearest G-W office.

GIFFORD-WOOD CO.

Since 1814 • Hudson, New York
Branch Offices: New York and Cleveland
Representatives in Principal Cities

3120

For More Information Circle 69 on Reader Service Card



Save composing room time-space

with Hamilton

ad assembly cabinet

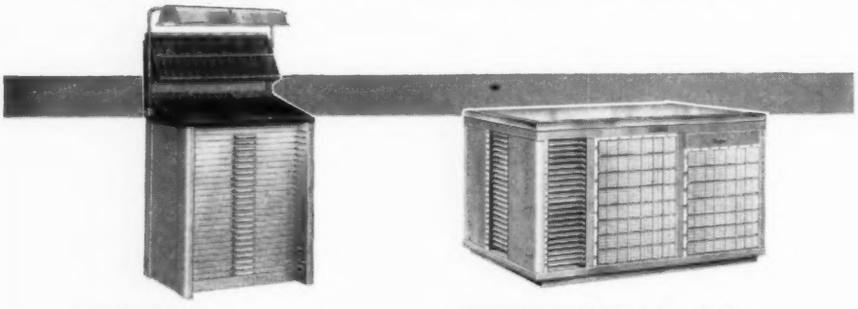
Everything you need in one area — *in front of you!* Save valuable floor space . . . avoid wasted time waiting . . . walking . . . searching. Enjoy instant accessibility for large quantities of your smaller size make-up materials. The best organized ad assembly cabinet available today.

The Hamilton No. 4109 ad assembly cabinet has 35″ x 24″ working surface with rack of 35 indexed compartments for small (4 to 32 picas) cut-to-measure materials.

Upper half of cabinet body has 31 compartments for cut-to-measure materials indexed from 33 to 61 picas.

Lower half of cabinet body has 8 bins 7⅜″ high x 7⅝″ wide for full-length materials.

Let Hamilton help you . . . write for complete catalog No. 28.



SINGLE TIER WALL CABINET No. 100
Holds 24 standard California job cases. Steel work top.

IMPOSING TABLE No. 1051
39″ x 65¼″ x 38⅜″ high. Plane surface. Holds 1836 furniture pieces; 176 galleys 8¾″ x 13″.

Hamilton
PROFESSIONAL AND SCIENTIFIC FURNITURE

new dimensions in time and space efficiency for: physicians; dentists; industrial, hospital, school laboratories; draftsmen; printers; libraries; home laundries.

Hamilton Manufacturing Company, Two Rivers, Wisconsin

For More Information Circle 78 on Reader Service Card

2,949,851 by James G. Ghormley Jr., and Clyde T. Kitchens, assignors to Ghormley Engineering and Mfg. Co.

PRINTING ROLL

This roll construction includes a strengthened shafted feature and an improved combination of stress sharing members which adapts it for use in modern high speed presses. It includes a tubular shell of extruded aluminum alloy and within the shell there is a tubular spacer which is joined to shell by tubular gudgeons which are recessed to receive tapered shaft end members with a force fit. No. 2,949,852 by John J. Schaefer, assignor to Reynolds Metals Co.

WEB TENSION CONTROL

The control is for use in handling a web of paper as it passes through a drying zone to dry inks. A variable speed drive that is controlled by web tension sensing mechanism is responsive to the tension of the web on opposite sides of cooling rollers over which web is passed. This sensing mechanism adjusts the speed of the variable speed drive. No. 2,949,295 by Wm. F. Huck, assignor to Huck Co.

ROLLER VIBRATOR MECHANISM

For use in an ink distributing system, this roller has been provided with a roller reciprocating device which can be adjusted while the roller is in use. This is accomplished by a follower which is moved in a closed looped path and which is held against axial movement with respect to the roller and a stationary component which is angularly adjusted with relation to the looped path. No. 2,948,158 by Nils Norlin, assignor to Carl Allers Etablissements A/S.

CONSTANT BACKLASH GEARING

To obviate noise and backlash in a rotary printing press having a printing couple with one cylinder of the couple supported by an eccentric sleeve for impression adjustment of the couple and gearing for driving the couple, this invention provides a driven input shaft journaled on an axis which coincides with the true axis of the sleeve, and a pair of meshing gears coupling the shaft and cylinder. One gear is internal and the other is external, their pitch radii differing by the amount of eccentricity of the sleeve. No. 2,948,215 by Louis S. Tyma, jr. and Peter E. F. Loew, assignors to Miehle-Goss-Dexter, Inc.

DRIVE FOR WEB THREADING

To ease the starting of a web through a machine, this drive for the endless carriers or chains of the threading mechanism is capable of imparting a slow, controlled, continuous movement when driven by an auxiliary drive system, notwithstanding the friction caused by the guide which must be overcome in the drive of the endless carrier and without interfering with the movement of the carrier at higher speeds when driven by the main drive system. This is accomplished by a

number of booster drive units. No. 2,944,345 by Harry W. Faeber, assignor to Time, Incorporated.

PLATE CYLINDER REGISTER

A compact adjusting mechanism for making axial and circumferential adjustments is so located that both said adjustments can be made at the same end of the press cylinder for ease of access by an operator and while the cylinder is rotating. No. 2,948,216 by Robert H. Thompson, assignor to Harris-Intertype Corp.

SCREEN PRINTING MACHINE

A simplified method of registry of the patterns of templates is accomplished by the use of templates of material which is responsive to magnetic forces and by providing externally disposed magnetic rollers for guiding the templates and a magnetic faceplate as a blanket printing table. No. 2,947,246 by Rupert Kraft.

ELECTRIC MOTOR CONTROLLERS

For Graphic Arts printing presses, this controller is an improvement on the construction of patent 2,409,264 in which 16 different preselectable operating speeds are afforded. One feature is that the operating speed may be adjusted without resetting the preselector to compensate for a change in the load and without affecting the drop out of plugging when maintained in color printing and at the same time costs are reduced. No. 2,947,232 by James Leslie Armentrout and Ronald L. Gibson.

Judges Choose PIA Self-Advertising Winners—Shown are the judges of the 1960 Self-Advertising contest sponsored by the Printing Industry of America and Miller Printing Machinery Co. Awards were presented at the PIA convention, Oct. 27. Left to right, are: Bruce Gentry, American Institute of Graphic Arts; William E. Stremmel, Advertising Federation of America; Mrs. Elbrun R. French, Direct Mail Advertising Assn.; George A. Lohr, chairman, PIA, and John E. Sly, Assn. of Industrial Advertisers. Winners' names will be reported in the December issue of PRINTING PRODUCTION.

COLOR SEPARATION METHOD

A method of color separation and preparation for the reproduction of a colored original by any of the Graphic Arts processes is embodied in a purely mechanical set of operations controlled by a novel electronic system. By utilizing standardized equipment and practices the method makes it possible for quality and fidelity in reproduction to be uniformly the motor speed approaches zero. No. 2,947,930 by Cyril P. Feldhausen, assignor to Cutler-Hammer, Inc.

Roll-Wound Paper

Efficiency Expansion Chucks

In one operation, lever the cam and lock it. It won't slip—ever. Unwind, rewind, or brake easily. There are efficiency expansion chucks for either fibre or steel cores up to ten inches in diameter—for shafts of 1" to 3½" in diameter in graduations of 1/16".

Chucks are inter-changeable—no rights or lefts. Give years of service—made of malleable high strength castings. Surfaces which contact core are precision machined. Lever action applies powerful force to the expansion jaws. Ribbed jaws bite firmly into core, eliminating core slippage when starting or changing speeds, even under extreme brake tension.

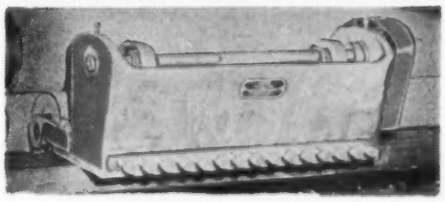
Write for the full time and money saving facts to—

VALLEY MFG. CO. Valley, Nebraska

For More Information Circle 184 on Reader Service Card

CAPCO *IMPROVED*

PORTABLE INK FOUNTAIN



Installation on Duplex

- **Saves time of pressmen—no costly installations**
- **Can be used on new or older equipment**
- **Easily operated and easily maintained**

Let us tell you about the many other features!

Installation on late model Goss Headliner

Capital Tool & Manufacturing Co., Inc.

5000 Calvert Road, College Park, Md. • Tel. UNion 4-7677

For More Information Circle 28 on Reader Service Card

PATENT SEARCHES
For Patent Research in the U.S. Patent Office, or prompt estimate on any type of search, write
INVENTION, INC.
Munsey Bldg., Washington 4, D.C.

Feeding, Folding, Delivery:

WEB RENEWING MECHANISM

In this improved automatic web renewing mechanism, the control for effecting change is independent of the initial diameter of the exhausting roll which diameter varies considerably for the same nominal size of roll. The arrangement is such that when the running roll reaches a predetermined diameter, a device sets into action mechanism to respond to a value related to the actual length of the web drawn from that time from the roll. No. 2,950,874 by Thomas Richard Bennett, assignor to R. W. Crabtree & Sons, Ltd.

PAPER MACHINERY

In a winder of the drum type employing a rider roll, this invention provides for constantly decreasing the pressure load of the rider roll in proportion to the increase in diameter of the winding roll by means of a control responsive to the extent of upward movement of the rider roll by the accumulated web on the winding roll. No. 2,950,875 by John E. Dain and Richard W. Phelps, assignors to the Black-Clawson Co.

CONTINUOUS SHEET FEEDING

A pallet for use with a continuous sheet feeder is designed with a flat and smooth upper surface and a thin forward transverse section, preferably from about one-eighth to one-quarter inch thick, thus leaving a notched out or rabbeted surface on the lower forward end of the pallet extending entirely across its width. This construction maintains the top level of a pile within the limits of reach of a separating mechanism during withdrawal of the pallet. No. 2,950,107 by Arthur G. Royer, assignor to Harris-Intertype Corp.

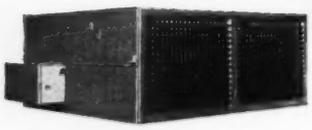
SHEET DELIVERY GAP

In a pile delivery apparatus, a sheet separator is situated adjacent the front face of the pile near the top. The separator is movable from a position clear of the vertical projection of the pile rearwardly into a position extending across the top of the pile to support the front edge of the sheets falling onto the pile and to create a gap between the top of the pile and its front edge which creates a gap for the introduction of an auxiliary receiver. No. 2,950,108 by William Frank Golding.

Bahnson
WATER or STEAM
UNIT
HUMIDIFIERS

cut your static and register problems, and dimensional changes in paper with

LOW-COST
HUMIDITY CONTROL



TYPE BA

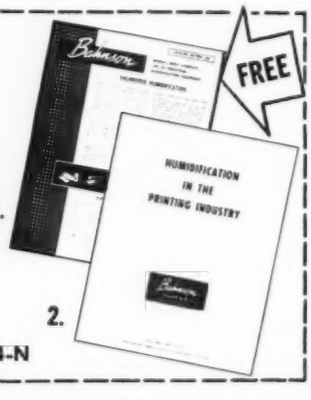
- Guaranteed, self-contained water or steam units have low first cost, low operating cost.
- Automatic controls.
- Easy to install; need only water or steam supply, drain, electrical connection.

GET YOUR FREE BOOKLET, CATALOG
1. Catalog details, illustrates complete line of 14 units to suit your need, any size area.
2. Learn how you benefit with money-saving answers to humidity problems in printing.

Simply clip coupon to letterhead and mail. No obligation.

NAME_____

THE BAHNSON COMPANY
WINSTON-SALEM, N. C.



PR-4-N

For More Information Circle 215 on Reader Service Card

Helpful Literature

(Continued from Page 32)

perfector press is available from Miller Printing Machinery Co. Reportedly, the press will print 7000 sheets per hr. in two colors on one side and 6000 sheets per hr. in two colors on both sides. Circle No. 330 on Reader Service Card.

Bindery-Mailroom

SIGNODE STRAPPING MATERIALS

A booklet describing strapping materials has been made available by Signode Steel Strapping Co. Charts detailing Signode's line of tensioners, dispensers, cutters and sealers are included. Circle No. 339 on Reader Service Card.

SHERIDAN NEWSPAPER EQUIPMENT

T. W. & C. B. Sheridan Co. has published information on its line of equipment for newspaper printers and publishers. Included are stuffing machines, inserters, gatherers, tipping machines, smashers, binders and trimmers. Circle No. 336 on Reader Service Card.

DEXTER CLEVELAND FOLDERS

Information on the Cleveland line of folders has been published by Dexter Company, Div. of Miehle-Goss-Dexter, Inc. The WS folder measures 14 in. by 20 in. and the AS folder, 18 in. by 24 in. Among the features of the line are multiple-up signature folding and an air wheel continuous feeder. Circle No. 337 on Reader Service Card.

HYDRAULIC CUTTER

Detailed information on a 30½ in., hydraulic cutter has been issued by Chandler and Price Co. The cutter features 590 sq. in. of table area and manual or automatic spacers. Circle No. 313 on Reader Service Card.

Miscellaneous

MOTOR CONTROL CENTER

A bulletin describing a new motor control center has been published by General Electric Co. The control center is for a.c. and d.c. motors. Circle No. 332 on Reader Service Card.

HAND TACHOMETERS

A pamphlet describing the Metron line of hand tachometers has been prepared by Metron Instrument Co. The instrument may be used to check linear speed of a moving web and speed of blowers. Circle No. 338 on Reader Service Card.

TESTING MACHINES

A bulletin describing testing machines and methods for the Graphic Arts industry has been published by Testing Machines, Inc. Included is information on a device which takes samples from a moving web of paper, a curl tester and the Patra paper equilibrium tester. Circle No. 329 on Reader Service Card.

NOW! NON-RUST!

Guaranteed effective! Guaranteed not to rust! Yet it costs less!

MAIL TODAY!

THE SIMCO COMPANY
920 WALNUT ST., LANSDALE, PA.

Ship _____ 16 oz. cans of Neutro-Stat @ $ 2.75

_____ cartons (1 doz. 16 oz. cans) @ $27.50

☐ STANDARD (for plastics) ☐ NON-RUST (for machinery)

FIRM _____

ADDRESS _____

SIGNATURE _____

For More Information Circle 161 on Reader Service Card

Partlow CAST-A-TROL on Linotype at Indianapolis Star and News. Mr. T. R. Gardiner, Chief Composing Room Machinist, cooperated in development of the new control.

NEW PARTLOW CAST-A-TROL

takes guesswork out of typecasting temperatures . . .

provides accurate regulation of BOTH crucible and mouthpiece temperatures on Linotypes and Intertypes . . . gives visible proof.

Commenting on the new CAST-A-TROL, T. R. Gardiner of the Indianapolis Star and News, says: "Using the new Partlow control, we have been able to hold the overall temperature variation within 3 or 4 degrees at the mouthpiece, maintaining the temperature consistently within that slight variation from 495 or 496 degrees. Crucible temperatures have varied 3 or 4 degrees, at most, from our preferred temperature of 540 degrees."

What's new about CAST-A-TROL? Two controls, two temperature indicating dials in a single case . . . operator can see temperatures without leaving his chair . . . easy mounting-bracket installation.

PARTLOW
TEMPERATURE CONTROLS

SEND COUPON FOR DETAILS

The Partlow Corporation, Dept. PR-1160
2 Campion Road, New Hartford, N.Y.

Please send complete information on the new CAST-A-TROL for our ☐ Linotypes ☐ Intertypes.

Name.....

Company.....

St. Address.....

City.....Zone.....State.....

For More Information Circle 164 on Reader Service Card

McCALL CORP. • MISSISSIPPI PUBLISHING COMPANY • R. R. DONNELLEY • SONS CO. • DALLAS TIMES-HERALD • KINGSPORT PRESS, KING
RUMFORD PR • NEWARK STAR LEDG • INDIANAPOLIS ST NEWSPAPERS
MIAMI DA TIMES-MIRROR • NG CO. • WINN ND NEWSP
CALGA S NYHETER LEGRAM • S-MINET
PROV HOU NE • B CHEC
JAC GUS A. I
SAVE
at least $10 a week
ON EVERY TTS-EQUIPPED MACHINE IN YOUR PLANT!
SHAFFSTALL MAT DETECTOR
ends Teletypesetter® errors
This electronic "mat detective" scans each line mat by mat in TTS® tape composition, stops machine if error occurs. Avoids repeated mechanical errors, cuts proofreading and re-run time amazingly. Hundreds of users!
*(Standard power or 230 v. 50 cycle—for export.) Write Shaffstall, 1717 Gent, Indianapolis, or Circle 11 on card.
Known and found
SHAFFSTALL
...the World around
LOBE • MO WORKS, MIL TIMES
LITTLE R GAZETTE & NEW EVENING STANDA LIVERPOOL
TULSA TRIBU ADELPHIA INQUIRER • LE PRESS • WAUKEGAN NE SENTINEL-ST
YONKERS HERALD-STATESMAN • OWENSBORO (KY.) MESSENGER • ST. PETERSBURG INDEPENDENT • DORAN GREETING CARD CO., WHIT
® "Teletypesetter" and "TTS" are registered trademarks of Fairchild Camera & Instrument Corp.

For More Information Circle 11 on Reader Service Card

Work on Color Offset

(Continued from Page 51)

cate ink offset patterns in as little as ¾ to 3 sec.

Work to date on ink formulation to decrease offset has been with conventional type ROP ink formulations. News inks currently being used in both black and color are formulated with non-oxidizing vehicles. Consequently, they dry by being absorbed by the paper fibers. Laboratory tests of experimental inks indicate that approximately a 20% decrease in offset has been made with the three color process inks that have been worked on.

In the initial studies of this problem we also have determined the effects of the many variables such as printing pressures, offset pressures, film thickness, and setting time of ink after printing that have to do with offset. The ink film thickness, time and offset pressures are the greatest factors. The following conclusions can be drawn:

(1) Printing pressure has only a slight effect on offset.

(2) Ink film thickness has a marked effect on degree of offset.

(3) Offset pressure is a major factor. (See Table I)

(4) Time plays an important role in offset. The current type ROP ink formulations are not absorbed immediately by the paper.

Work is being done continually to investigate various vehicle systems that are applicable to newspaper printing with present equipment. Our endeavor is to develop an ink which will set on the paper within 2 to 3 sec. after printing without auxiliary drying units.

Our future work will also include what effect, if any, various grades of newsprint stock have on offset.

In addition to the work we are doing on the offset problem in ROP color inks, we have in the past done considerable work in an attempt to eliminate or decrease showthrough and strikethrough. A set of newspaper color inks has been developed that will minimize strikethrough. These have been marketed as non-bleed inks. Original work on this type ink was done for the comic book printers to eliminate oil migration to cover stocks. These inks have been used in ROP color work, but they do not reduce the offset.

As the development work is continued on newspaper color inks, it is our belief that not only will we decrease offset, strikethrough and showthrough, but that a system will be developed which will actually give better color reproduction with more brilliant color than is now obtained with the present vehicle system.

We are constantly working in our research and development laboratories on news blacks, as well as these color inks. Our most recent studies have been on ruboff of news black. Here, again, before a true study of the factors influencing ruboff could be made, testing procedures and equipment were needed. We had to duplicate a rubbing ac-

HEADQUARTERS FOR MODERN MULTIFORM® SAW TRIMMERS
Richards
Saw Trimmers
Routers
Mortisers
Write for literature
J. A. RICHARDS CO.
903 N. PITCHER STREET
KALAMAZOO, MICHIGAN

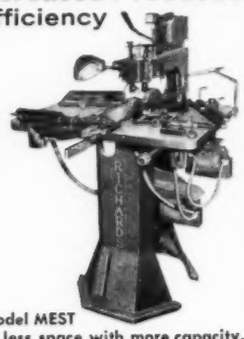
For the Modern Composing Room

Model RC
The first rolling table saw. Heavy Duty ball and roller bearing construction, modern streamline efficiency.

CUT COSTS with a DO-MORE

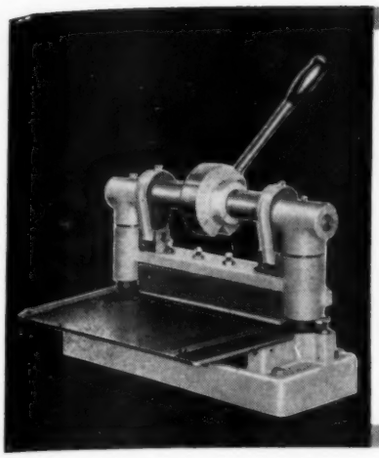
Do-More Saw-Trimmer, Router, Planer, unit. Low initial cost, greater production efficiency. The Do-More leads the field for the modern weekly that wants to economize.

Increased Production Efficiency



Model MEST
In less space with more capacity, with a Electromatic Universal Saw Trimmer, Router and Mortiser.

For More Information Circle 150 on Reader Service Card



MONOMELT
Metal Knife

CUTS ZINC, COPPER, LEAD, EASILY... Cam-powered blade multiplies hand-pressure 20 to 1 to trim plates and stereotypes square and clean. Leaves no burr. Cut edge requires no filing. Faster and cleaner than metal saw. Many uses in composing room and engraving shops. Saves time and labor. Tool steel blade has four edges to be used before resharpening. Shears narrow strips. Will square half column cuts or chop big stereotypes. Ruggedly built for heavy duty. Unconditionally guaranteed. Write for folder.

THREE MODELS TO CHOOSE FROM
1. 6" MODEL, weighs 35 lbs., measures 5"x12".
2. 12" MODEL, weighs 135 lbs., measures 7"x20".
3. 24" MODEL, weighs 260 lbs., measures 8"x32".

THE MONOMELT COMPANY, INC.
1611 Polk Street N.E., Minneapolis 13, Minnesota

For More Information Circle 124 on Reader Service Card

tion causing a single transfer on a print under standard conditions and to evaluate the results quantitatively. Dr. Voet of our Research Laboratories recently developed a testing procedure for measuring ruboff of printed news stocks.

We have since determined a number of factors that influence the ruboff from printed news stock:

(1) Ruboff decreases rapidly upon the setting of ink in the paper. From our tests it appears that generally after about 15 min. an end point in ruboff has been reached (See Table II.)

(2) Ruboff at a given print blackness is roughly proportional to the carbon content of the ink.

(3) Ruboff increases with increasing blackness of the print, particularly above 90% blackness.

(4) Influence of vehicle viscosity on ruboff was studied. Tests showed that the influence of vehicle viscosity is apparent only in the initial stage where setting time for ink with viscous vehicles is longer than that with fluid vehicles.

(5) Tests indicate that ruboff is less on smoother newsprint.

(6) A study of the effect of impression indicates that ruboff is slightly decreased with increased impression.

Water Base Ink Development

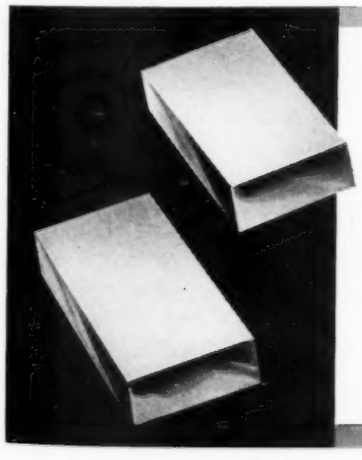
Water base ink has been the subject of more study than any other news ink type. Many patents exist particularly on the vehicles for this type of ink.

From our own experience and trials with inks containing water, either as the liquid part of the vehicle or emulsified, the big problem is to overcome completely the fill-in on halftone plates. This fill-in occurs with water as well as with alcohols and glycols because of their polarity.

It is our feeling that this fault is an inherent quality in these liquids, in view of the strong affinity of the polar liquid for the newsprint fibers. A plate wetted with a polar liquid will trap fibers, generally in the middletone area. These trapped fibers will act as the start of fill-in, which thus far no one has been able to overcome.

Work is continuing on water base inks. If and when we can overcome the fill-in of halftones completely, then we will have a superior product. Such problems as we have encountered with the water base ink may be expected with any research and development program. This is one of the reasons that improved products are not on the market 100% today—either because of slight imperfections or the high manufacturing cost of the finished product.

Research chemists in their work must forget cost and aim at developing a product which will overcome the many difficulties that are encountered. For example, we are now working on a new vehicle system for news black knowing in advance, before carrying out the experiments, that the raw material cost will be considerably higher than the current formulations being used. It is obvious to us that lab experimentation must be carried on in this direction to obtain a product that will give sharper printing, eliminate ruboff, strike-through and showthrough.



MAGNESIUM BASE

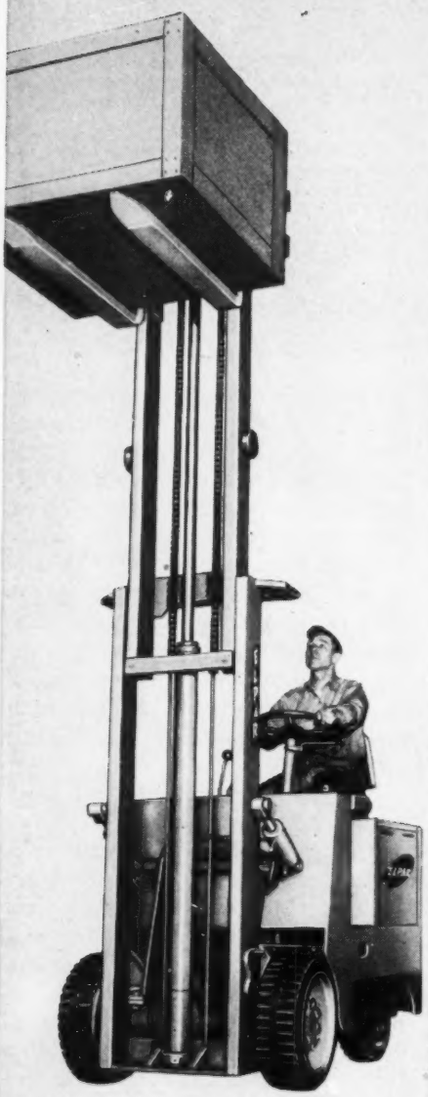
● Ideal newspaper base. One-sixth the weight of old-style base. Precision finished to .001" in height. Any height or size. Larger sizes make perfect, light-weight proof press beds and molding slabs. Inexpensive, too.

Write for usable free sample and prices

THE MONOMELT COMPANY, INC.
1611 N.E. Polk, Minneapolis 13, Minn.

For More Information Circle 115 on Reader Service Card

ACRO-SMOOTH



Slashes Truck Maintenance 55%

• A new concept in truck design . . . with step-less speed control . . . demountable electrical and hydraulic controls . . . easier service accessability . . . plus, a host of other important features that can halve your maintenance. Eliminate accidents . . . increase work output with ELPAR's new "Acro-Smooth", 4,000, 5,000, 6,000 and 7,000 lbs. capacity.

Write for Complete Details Today!

ELPAR ELECTRIC TRUCKS

THE ELWELL-PARKER ELECTRIC COMPANY

4036 ST. CLAIR AVE. • CLEVELAND 3, OHIO

Circle 46 on Reader Service Card

Work Saving Techniques

(Continued from Page 42)

on the figure and roll the impression cylinder over it to print the inked image on the tire patch. The shell cast 2 and its base are removed.

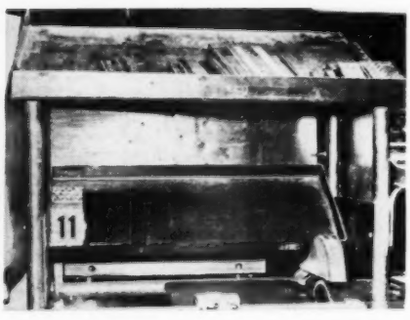
In their place a piece of type high stereo flat cast is laid on the press bed (without the galley). The tire patch carrying the inked figure 2 image is laid face down on the type high piece of base. The impression cylinder is rolled over the tire patch carrying the inked proof of the figure 2 and which is now transferred to the blank type high base. Using the inked image on the base as a guide, we cut out a new figure 2 on the Carlson finisher.

TAPE TECHNIQUES FOR ADS—On the corners only of repeat ads we use spun glass tape. This eliminates tying the ads with string. The ads may be locked right in the form without removing the tape at the corners.

Ordinarily in ad composition we supply an individual holder with a roll of Scotch tape on each ad frame rather than having one central holder in the composing room.

TYPE HANDLING SPEEDED—In order to speed the workflow of type on our daily paper we don't wash editorial or ad type immediately after proving. We found it is far better to leave the ink on the type until the page form has been made up. We wash the type only once just before sending the form to the stereotype department.

KILLED-OFF BASE STORAGE—Complementary to the strip and base material rack (shown in Fig. 9)



Killed-off base from forms is deposited in rack (Fig. 11) mounted at an angle above each saw.

is the killed-off rack mounted above and just back of the saws (Fig. 11). The rack is used for storing the daily killoff of 18 pt. plate mounting base. In this way, we can use the base two or three times. The stout pipe supporting legs are bolted to the floor with flanges for rigidity. Steel galleys may be used at inclined position for base storage purposes.

COLORED PAPER FOR RUSH PROOFS—We use colored proof paper near edition time to indicate late editorial rush material. All those concerned with getting such type into the paper immediately recognize that it must be handled preferentially. Those in the proof room, the operator who sets the type, the bank and makeup men are automatically alerted as to its importance.

Production Posers

(Continued from Page 69)

the new ink advisory team. The committee consists of Dick Powers of the Philadelphia *Bulletin*, Frank Freitas of the Boston *Globe*, and Al Yelmgren, our ink chemist. Dr. Gerrard Larocque of the New York *News* is the chairman.

This type of ink, said Tingley, shows promise of drastically reducing ruboff and ink misting and to a lesser extent, showthrough.

If we must pay more money for improved printability, and I'm not sure that we will, we could afford a percentage increase on news ink far more than on newsprint. The point is that it is possible to do a better job of printing on newsprint with its present quality level.

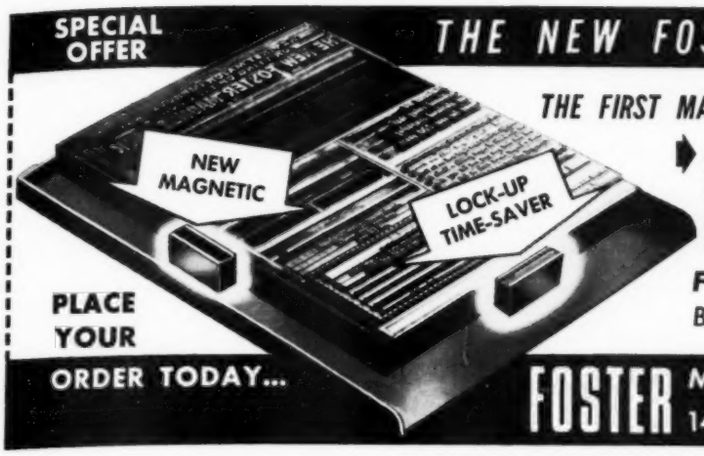
Tingley said that in ANPA-RI's work, the water-base inks have been pigmented and no particular problem appears to exist in the use of this ink for ROP colors.

The problem, he reported, is that halftone areas tend to fill due to an accumulation of paper dust around the dots. "During our last press run in a newspaper plant late last month," he said, "we experienced much better results than ever before. Let me emphasize that our experimentation is continuing. I am reporting progress, not a solution. . . . We modified the press to achieve these better results. This is unfortunate, since it has been one of our basic objectives to refrain from press modification. However, these were minor in nature."

The Stereotype Clinic was ad-

SPECIAL OFFER

THE NEW FOSTER "MAGNET LOCK"



THE FIRST MAJOR IMPROVEMENT for "LOCKING-UP" FORMS!

Eliminate old fashioned string that has cluttered composing rooms for over 200 years. Save countless minutes getting forms corrected • Foster Magnet Locks are strong enough to hold form tight and on its feet for hundreds of repro proofs • Made in one size that you can use for any size form • Larger forms such as full page newspaper ads can require 2 locks.

FREE TRIAL INTRODUCTORY OFFER!
Box of 25 Foster Magnet Locks only $17.75

PLACE YOUR ORDER TODAY...

FOSTER MANUFACTURING CO. LOcust 8-5085
140 N. Thirteenth Street, Philadelphia 7, Pa.

For More Information Circle 66 on Reader Service Card

dressed by H. Richard Witte, New York *Times*, who spoke on *Operating with Packless Mats*. He said:

"The New York *Times* has been using packless mats for over a year. I should not say 100% because we do use a conventional mat on our classified pages. Out of some 2300 mats per week, we use about 95% of the packless variety.

"I believe there are two critical points in the use of a heavy mat—those of molding and drying. Some changes were made on our casting boxes, but I am speaking of everyday use and operations that cannot be neglected.

"We do use some packing, but including the classified pages, about 60% of our mats go to the machines without packing. We do not pack large areas in the center of a page, and we get as much depth as 0.047 in. in the plate in those areas.

"*Molding*—Our molding combination is a 0.020 in. Duron, 0.040 in. Vinyl, and a 0.145 in. Bakelite board. We mold a 0.070 in. mat to 0.038 in. in the compressed areas.

"*Sta-Hi*—We found the motor in the Sta-Hi would not pull as much vacuum as we needed. So, we installed a 5 h.p. motor and it is giving the desired results.

"We have used three different mats with some degree of success, if all mats are 0.070 in.

"We also made some tests. The final outcome makes us believe you can mold too fast or too slow. There must be a point of perfection. We have as yet not found it." ⊕

Engineering
Services for the GRAPHIC ARTS

Based upon a knowledge of printing requirements

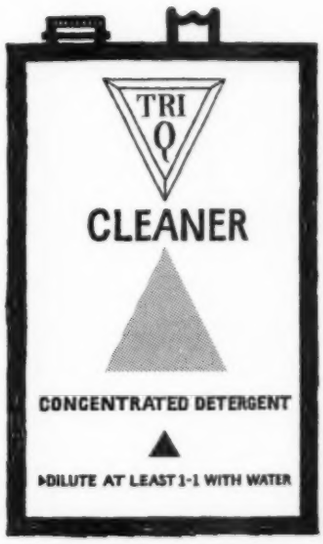
Layout, design, construction supervision for

New plants—Alterations
Equipment Installation

CHAS. T. MAIN, INC.

Boston, Mass. Charlotte, N. C.

For More Information Circle 110 on Reader Service Card



AT LAST

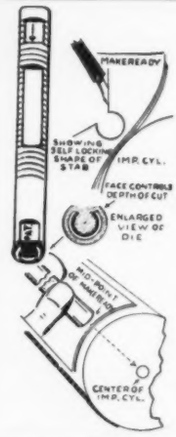
THE IDEAL CLEANER

NEWSPAPER PRESSES....SHOP FLOORS....WALLS AND JUST ABOUT EVERYTHING THAT COLLECTS INK AND GREASE WILL COME CLEAN WITH 'SUPER DETERGENT', TRI-Q CLEANER. THIS ECONOMICAL, NON-TOXIC, NON-FLAMMABLE CLEANER DILUTES WITH WATER FOR A MULTITUDE OF JOBS - IT EVEN REMOVES WAX AND NEVER LEAVES A RESIDUE.

✱ FREE SAMPLE-WE'LL HAPPILY SEND YOU A FREE SAMPLE OF THE 'IDEAL CLEANER' IF YOU WILL WRITE US ON YOUR COMPANY LETTERHEAD.

TRI-Q., INC.
1911 PENN MAR AVE., EL MONTE, CALIF. GILBERT 3-1514

For More Information Circle 170 on Reader Service Card



AUSTIN MAKEREADY STABBER

Produces self locking makeready mark • Fast and workmanlike • Controlled packing penetration • Prevents cylinder damage • Standardizes, simplifies makeready register • Heat treated impact alloy • Pocket size

PRICE — $2.75, postpaid
10 or more, 10% discount

GRAPHIC PRODUCTS - Jim Austin
63 W. Main St. Dept. F. Newark, Ohio

For More Information Circle 23 on Reader Service Card

TROLLEY'S THE THING!

•Wrap-ups due to web breaks in long folder and color leads are hard to prevent, that is, if you don't have **COOKSEY SYSTEM TROLLEYS.**

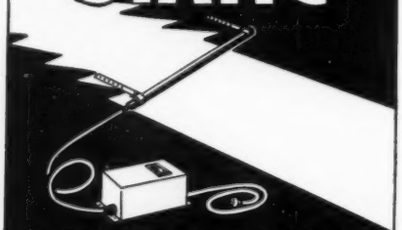
Investigate the Cooksey System Today

KORTHE ENGINEERING CO.
9353 Seymour Ave. Schiller Park, Illinois

Sales Agents { The Goss Printing Press Co., Chicago
R. Hoe & Co., New York
Wood Newspaper Machinery Co., New York

For More Information Circle 99 on Reader Service Card

STOP STATIC



CHAPMAN STATIC ELIMINATOR
"Statomatic" MODEL B1

★ GUARANTEED TO REMOVE STATIC AT POINT STATIC BAR IS APPLIED
★ ABSOLUTELY NO SHOCK OR HAZARDS, SAFE TO USE.
★ COMPACT, COMPLETE EQUIPMENT.
★ SMOOTH, MODERN DESIGN.
★ LOW COST, YEARS OF TROUBLE-FREE SERVICE.
★ EASY TO INSTALL, SIMPLY ATTACH TO YOUR MACHINE & PLUG INTO ANY STANDARD 115 VOLT OUTLET.

WRITE FOR FREE BULLETIN 79 SHOWING OUR COMPLETE LINE

Chapman Static Eliminators
MANUFACTURED BY
THE PORTLAND COMPANY
60 FORE STREET • PORTLAND, MAINE
Originators and Leading Manufacturers of Static Eliminators..... since 1900

Circle 146 on Reader Service Card

Greeting Card Printer

(Continued from Page 38)

cloth fibers are electrically charged in the machine so that they will adhere to the glue design on end, not lying flat or in any random manner.

The high gloss areas are produced by thermography. Many printers think of this process as pseudo engraving with limited use in letterheads. But by thermography, large solids and intricate line work are produced to enhance basic design. Metallic effects may also be achieved through this method, as well as by the more conventional hot stamping method using gold and silver foil.

A competent industrial engineering staff has contributed to the steady growth of American Greetings Corp. Industrial engineering is fundamental to the success of greeting card production. Responsibility for plant layout, work place layout, space, methods, standards, appraisal and investigation of equipment needs and installation of new equipment are some of the details handled by the engineering department. Preplanning and search for better methods are effective tools in maintaining a price schedule. Some of the engineering experience and ability has been overlooked for too long in Graphic Arts production.

How many lithographers and printers today can predict costs on a new operation? How many know what their costs should be on present operations? Past performance records are not necessarily an indication of what performance should be. One answer to these questions is the application of sound engineering methods, methods which have been proved in many other industries. Installation of production standards by competent engineering groups, through use of time and motion study, method-time-measurement, or other means would enlighten many plant managers as to the efficiency of their production methods. An engineering program

WOULD YOU INVEST $75 TO SAVE $420?

Composition errors consume 6% of a linecaster's time. At an average salary of $7000, this amounts to $420. Correcting these mistakes takes **twice as long** . . . another $840. In one year this amounts to $1260!

These figures do not include the loss of time of proofreaders, make-up men and others handling these corrections.

With the Matrix Contrast System of treating symbols and characters on matrices with black and white and other Contrasting Colors, linecasters average 33 1/3% fewer mistakes. This reduction in normal composing room errors of one-third, saves you a minimum of $420 at a cost of only $75. Isn't this worth looking into?

MATRIX CONTRAST SERVICE
MATRIX CONTRAST CORPORATION
154 West 14th St., New York 11, N. Y.

For More Information Circle 114 on Reader Service Card

MORRISON

• SAW TRIMMERS
• ROUTERS
• SLUG STRIPPERS

Add Savings and Profits to All Composing Rooms. Write for Proof.

THE *Morrison* COMPANY
125 W. Melvina St. Dept. P Milwaukee 12, Wis.

For More Information Circle 127 on Reader Service Card

is capable of uncovering and correcting many wasteful practices which have developed.

The effective layout and operation of American Greetings order filling department is an example of the results which may be obtained by effective application of engineering principles. Also, the adoption of Du Pont's Dycril photopolymer printing plate was the result of an investigation by this department. Installation of this process has resulted in considerable savings, plus the advantages of convenience and quality control not previously available. Another example involved designing and building a rewinder for a gravure press. This new equipment helped increase production sufficiently to cope with production requirements.

Just as the maintenance of production standards is an engineering function, the maintenance of quality is the function of the quality control department. The areas in which this department is involved range from establishing standards of color uniformity to cutting tolerances and folding deviations. Use of the proper glue on envelopes and heat seal adhesive on pillow sachets, determination of inspection methods, and use of statistical data are also functions of quality control. At American Greetings, this function is not superficial; but rather it is an operable system whereby decisions are made independently of production departments.

Scheduling Operations

Planning and scheduling, along with dispatching, are vital tasks in a business where thousands of items must arrive at their destinations at the proper time. Fifty thousand cards arriving at the hot stamping presses on schedule are useless unless the proper foil leaf has been requisitioned to arrive at the same time.

Basically, the scheduling board at American Greetings is set up by operations on a time-distance unit, whereby the presence of a given item in a given department is designated by a strip on the board. The length of the strip is comparable to the estimated production time involved. The normal problems of scheduling are multiplied by the amount of the lithography performed by commercial printers at widely scattered points.

Failure of a lithographer in Cincinnati to deliver on time can upset the schedule in six different departments at American Greetings. For this reason, flexibility must be a key feature of this kind of scheduling so that a department foreman is not suddenly confronted with the problem of utilizing his people.

Decisions on such things as overtime are made by close coordination between operating, planning and scheduling departments. Such decisions are based on production records, production volumes, and the proximity of the due date.

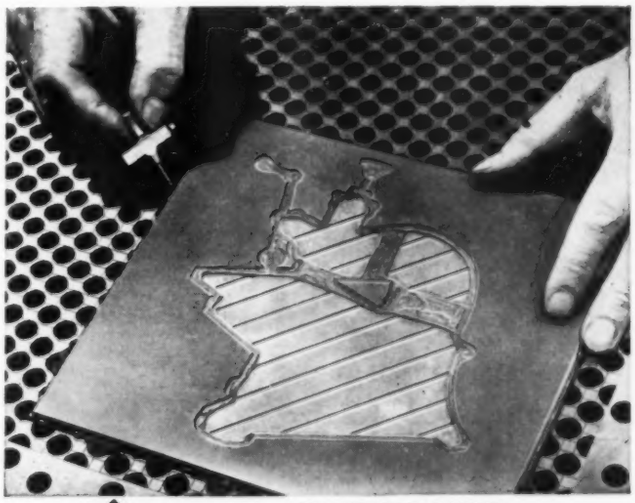
The next time you send a greeting card, remember that it is much more than a nice way to convey a message. It is the end product of intense effort on the part of many people. It is ideas, imagination and productive effort; and considering the stability of its price over the years, it is one of the best buys you will ever make.

METROPOLITAN HEAVY DUTY MATRIX TRIMMING TABLE
For NO PACK MATS

- 26" Heavy Duty Micro Ground Balanced 30-lb. Shear
- Designed for use with NO PACK MATS
- Guarantees smooth straight cut on all NO PACK MATS
- Straight edge on back gives square cuts.

APS Inc. P. O. Box 421 Lynnfield, Mass.

For More Information Circle 8 on Reader Service Card



pmc Precision Printing Products

STERLING
Toggle Base

Reduce lockup and makeready time to the minimum. PMC Toggle Base and Hooks assure fast, accurate plate positioning . . . eliminate downtime because of rocking cuts and work-ups . . . cut operating costs . . . and improve quality, for plates are held in exact registered position throughout longest runs.

Base available in magnesium or semi-steel.

For finest quality . . . for big savings in time and costs . . . investigate PMC precision products.

THE PRINTING MACHINERY CO.
436 Commercial Square, Cincinnati 2, Ohio

For More Information Circle 142 on Reader Service Card

REZLON

THE MODERN BASE FOR MODERN NEWSPAPERS

REZLON® is the new plastic base already in use by over 120 newspapers and commercial printers. It's the modern answer to low-cost accurate basing of all shells, plastic plates, engravings, Fairchilds and Elgramas.

REZLON

Weighs half as much as aluminum. ● Tremendous mechanical strength, great tensile and flexural strength. ● Distortion free under mat roller pressures. ● Resistant to almost all acids. ● Machined on standard woodworking and metalworking equipment. ● Available in any size or thickness. ● Write for free sample and complete information.

mps | MIDWEST PUBLISHERS SUPPLY CO.
4500 W. Cermak Rd., Chicago 23, Ill.

REZLON

Circle 111 on Reader Service Card

AMSCO

STEEL and ALUMINUM

STEREOTYPE CHASES

The Best Known CHASES In The Graphic Arts Industry. The Best You Can Buy!

AMSCO Stereotype Chases (Steel and Aluminum) have been the **first Choice** in stereotype departments where **rigidity** and consistent accuracy means economy of maintenance.

CONSIDER THESE FEATURES

- Every AMSCO Chase is square and true.
- Steel Chases electrically welded for strength.
- Aluminum Chases designed to provide light weight when necessary.
- Hardened steel inserts in both steel and aluminum chases reduce wear at contact points.
- All AMSCO Stereotype Chases patterned from Template or Blue Print.

Catalog available — write today.

AMERICAN STEEL CHASE COMPANY
31 31 Forty-Eighth Ave., Long Island City 1, N. Y.

OVER 300 LEADING DEALERS, COAST-TO-COAST, HANDLE **AMSCO** PRODUCTS.

Circle 9 on Reader Service Card

ADVERTISERS' INDEX

NOVEMBER 1960

PRINTING PRODUCTION REPRESENTATIVES

PAUL B. HOLDER, Publisher, 1276 West Third St., Cleveland 13, O. Phone: PRospect 1-0088.

WILLIAM L. OSBORN, Eastern Advertising Manager, 310 E. 49th St., New York 17, N. Y., Phone: PLaza 3-8350.

MELBURN O. SIMMONS, Mid-West Advertising Manager, 333 North Michigan Ave., Chicago 1, Ill. Phone: DEarborn 2-6467.

WM. A. AYRES, West Coast Representative, 233 Sansome St., San Francisco 4, Calif. Phone: YUkon 6-2981.

FRED FRISENFELDT, 1709 W. 8th St., Los Angeles 17, Calif. Phone: HUbbard 3-2777.

American Publishers' Supply, Inc. 97
American Steel Chase Co. 98
American Type Founders Co., Inc. 20, 21
Ampress, S. A., Affiliate of R. Hoe & Co., Inc. 8, 9
Avery Macey International Corp. 99

Bahnson Company 90
Beveridge Paper Co. 81
Brown, L. L., Paper Co. 6
Burgess Cellulose Co. 22

Capital Tool & Mfg. Co. 89
Carlson, Chesley F., Co. 98
Central Compounding Co. 98
Certified Dry Mat Corp. 30
Chemco Photoproducts Co., Inc. 23
Crosfield Electronics, Inc. 70

Di-Noc Chemical Arts, Inc. 66

Eastern Newspaper Supply, Inc. 25
Elwell-Parker Electric Co., The 94

Fairchild Graphic Equipment, Div. Fairchild Camera & Instrument Corp. 73
Foster Manufacturing Co. 95

Gay-Lee Company 86
General Electric Co. 31
Gifford-Wood Co. 87
Goss Company, Div. Miehle-Goss-Dexter, Inc. 52, 53
Graphic Products Co. 96
Great Northern Paper Co. 64

Hamilton Manufacturing Co. 88
Hammermill Paper Co. 17, 18
Hammond Machinery Builders, Inc. ..... 12, Inside Back Cover
Hantscho, George, Co., Inc. 34
HCM Corporation 63
Heidelberg Automatic Presses 3

Imperial Type Metal Co. 10, 61
Interchemical Corporation, Printing Ink Div. 24
Intertype Company, Div. of Harris-Intertype Corp. ..... Outside Back Cover

Kenro Graphics Mfg., Inc. 75
Korthe Engineering Co. 96

Ludlow Typograph Co. 7

Macbeth Daylighting Corp. 26
Main, Chas. T., Inc. 95
Matrix Contrast Corp. 96
Midwest Publishers' Supply Co. 98
Miehle Company, Div. Miehle-Goss-Dexter, Inc. 29
Miehle-Goss-Dexter, Inc. 13
Monomelt Co., Inc. 93
Morrison Company, The 96

National Cash Register Co. 2
Nolan Corporation 85, 98
nuArc Company, Inc. 28

Offen, B., and Co. 99

Paper Manufacturers Co. 27
Partlow Corporation 91
Pate Company 99
Portland Company 96
Printing Machinery Co. 16, 97
PRINTING PRODUCTION 4

Richards, J. A., Co. 92
Robertson Photo-mechanix, Inc. 14
Rouse, H. B., & Co. 99

Scott, Walter, & Co. 33
Shaffstall Equipment, Inc. 92
Sheridan, T. W. & C. B., Co. 59
Simco Company 91
Sta-Hi Corporation 1
Star Parts, Inc. ..... Inside Front Cover, 82
Statikil Company 99

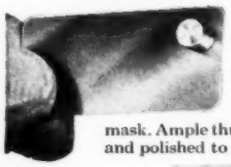
Tenak Products Co. 19
Tri-Q, Incorporated 95
Type & Press of Illinois, Inc. 98

Valley Manufacturing Co. 89
Vandercook & Sons, Inc. 99

Wood Flong Corp. 11
Wood Newspaper Machinery Corp. 15

Ask Carlson

how to get and hold Perfect Register



This $1.35 Carlson stainless steel register pin sent free with the answer. Thin base. Will not buckle mask. Ample thumb space. Machined and polished to exactly .250".

This generous sample of Carlson Mask also sent free with the answer. Each sheet of Carlson Mask is clearly identified with the Carlson mark of quality.

THE CHESLEY F. CARLSON COMPANY
2240 Edgewood Avenue • Minneapolis 26, Minnesota

Circle 33 on Reader Service Card

SHARPER HALFTONES
BRIGHTER COLORS

33 FOR LETTERPRESS

INK CONDITIONERS make good inks better 1 lb. can $2.20 Send for Price List

O-33 FOR LITHO

CENTRAL COMPOUNDING COMPANY
1723 North Damen Avenue • Chicago 47, Illinois
Mfrs. of Trik, Glazcote, 20/20 Overprint Varnish

Circle 34 on Reader Service Card

NEW BINDERY EFFICIENCY

VICKERS-ARMSTRONGS stitchers are the safest, speediest precision built single head units on the market today. Priced competitively!

TYPE & PRESS of Illinois Inc.
3312 North Ravenswood, Chicago

Circle 183 on Reader Service Card

NOLAN REMELT FURNACE

BIG FURNACE FEATURES . . .

SMALL FURNACE PRICE!

600 lb. and 1-ton design . . . safe, easy to operate . . . cuts remelt costs in half!

write for full information

NOLAN Corporation ROME, NEW YORK

Circle 197 on Reader Service Card

CLASSIFIED ADVERTISING

CLASSIFIED RATE—$1.00 per line. Minimum 5 lines, 25 characters per line. Cash with order.

CLOSING DATE — 15th of month preceding date of issue. We will forward all mail addressed to box numbers.

FOR IMMEDIATE SALE

Two #2/0 Miehles and two #2 Miehles, all with pile feeders, extension deliveries, fully equipped and in fine condition. May be seen running and any reasonable offer accepted. Must be moved at once. Write Box 613, PRINTING PRODUCTION

HELP WANTED

Engineer and a chemist with research and/or development background to become associated with a group of consultants prominent in the Graphic Arts. Write Philip E. Tobias Associates, Mt. Carmel and Houston Aves., Glenside, Pennsylvania

PROJECT ENGINEER

Mechanical, electrical or chemical engineer wanted for expanding development program with modern gravure publication printing company. We want a technical man, well grounded in theory and with the courage of his own convictions. Recent graduate will be considered, but any experience in graphic arts, including paper-manufacturing, converting, or allied industries is preferred. Salary open. Contact:

Mr. D. A. Cutler, Director of Research & Engineering
Triangle Publications, Inc. • 440 North Broad Street
Philadelphia 1, Penna.

FOR SALE

Good, Used ROTOGRAVURE PRESSES

1—16″ 3 Color Roll to Roll Complete ready to run
1—26″ 3 Color Roll to Roll Complete ready to run
1—30″ 3 Color Roll to Roll Complete ready to run
on Cellophane, Foil, Paper or other Materials
1—2 Color 36″ wide Web Rotogravure Press
1—4 Color 66″ wide Web Rotogravure Press
1—5 Color 42″ wide Web Rotogravure Press
1—6 Color 66″ wide Web Rotogravure Press
1—8 Color 59″ wide Web Rotogravure Press
1—4 Color 72″ wide Web Rotogravure Press
1—1 Color 38 x 50″ Sheetfed Rotogravure Press
1—1 Color 29 x 45″ Sheetfed Rotogravure Press
and New Rotogravure Presses in sizes to meet your requirements up to 200″ wide.

AVERY MACEY INTERNATIONAL CORP.
420 Lexington Ave., New York 17, N. Y. LE 2-2955

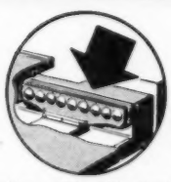
For More Information Circle 132 on Reader Service Card

COST-CUTTER SAWS

Today's Best Buy in Trimmer Saws

Ball bearing, easy gliding tables on all models. Powerful workholder . . . Greater work capacity . . . Micro elevating saw head on Models B & C.

Unsurpassed for quality and precision. Bench, console, floor models. Priced $650.00 to $995.00.



Tables glide effortlessly on 18 steel ball bearings.

PATE COMPANY 6124 N. Pulaski, Chicago 46, Illinois

For More Information Circle 59 on Reader Service Card

Use the convenient yellow Reader Service Card found in this issue for requesting information about printing equipment and supplies.

WEB DRYING

LETTERPRESS • OFFSET
GRAVURE • FLEXOGRAPHIC

HIGH SPEED PRODUCTION
ECONOMICAL OPERATION

25 Years DRYER Experience

B. OFFEN & CO.
29 East Madison St. Chicago, Ill.

For More Information Circle 141 on Reader Service Card

VANDERCOOK & SONS, INC.

General Offices, Research Laboratory, Demonstration Room & Factory
3601 W. Touhy Ave., Chicago 45, Ill. Phone: ROgers Park 1-2100
Eastern Sales and Service
205 W. 34th St., New York 1, N.Y. Phone: BRyant 9-6270
Western Sales and Service
3156 Wilshire Blvd., Los Angeles 5, Calif. Phone: DUnkirk 8-9931

For More Information Circle 182 on Reader Service Card

VIRTUALLY . . .
every printing plant in the world uses one or more.
TIME-SAVING *Rouse* **PRODUCTS FOR PRINTERS**

LEAD AND RULE CUTTERS • TYPE GAUGES
MITERING MACHINES • COMPOSING STICKS
SLUG CLIPPERS • BAND SAWS

H. B. ROUSE & CO.
2214 N. Wayne Avenue, Chicago 14, Illinois

For More Information Circle 152 on Reader Service Card

Self Spraying

PRESS BUTTON AND SPRAY
$3 PER CAN
$30 PER DOZ.

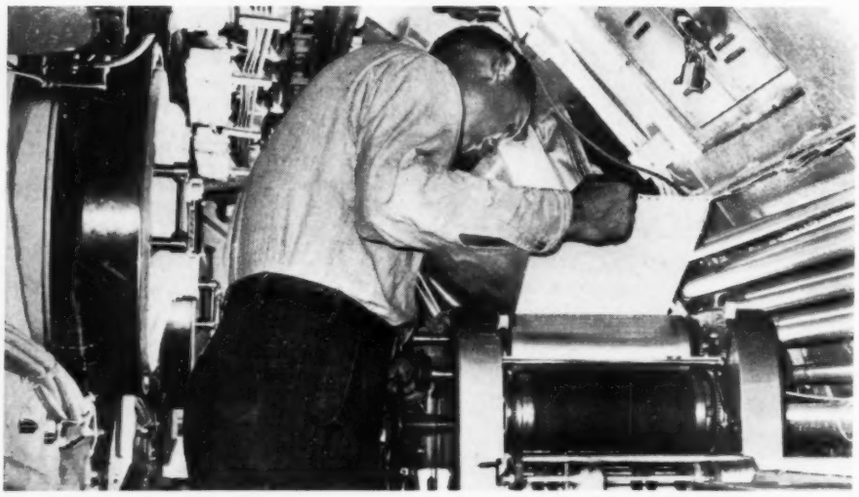
STATIKIL
TRADE MARK REG. IN U. S. PAT. OFFICE
STOP STATIC ELECTRICITY
The Original The Only
STATIKIL
1220 W. 6th St. Cleveland 13 Ohio

For More Information Circle 166 on Reader Service Card

British-American Ink Company—Formation of a jointly owned ink manufacturing company has been announced by Universal Printing Ink Co., Ltd., Leeds, England, and Sun Chemical Corp. Discussing printing inks for the expanding packaging industry in Europe are, left to right: William P. Bittenbender, international director, Sun; Donald Keech, managing director, Universal, and J. S. Thome, vice president, Sun.

GRAPHIC VIEWS

of the Printing Industry

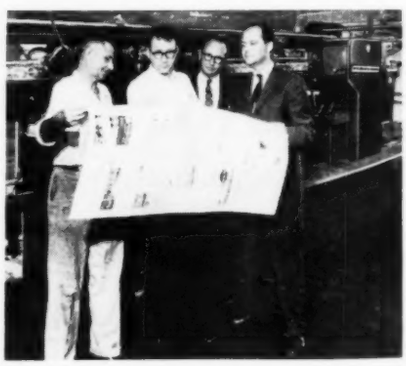


Atomic Subs House Underwater Newspapers—Daily newspapers are published aboard the two U. S. atomic submarines during their underwater missions. A yeoman on the U. S. S. Patrick Henry is shown doubling as a pressman as he produces a newspaper on a table top offset press, manufactured by A. B. Dick Co. The press occupies less than 6 sq. ft.

Universal Test Press Installed in Europe—The first Universal IV test press to be installed in Europe is examined by E. O. Vandercook, second from right, president, Vandercook & Sons, Inc. The press is in operation at Imprimeries Populaires, Lausanne, Switzerland. Left to right, are: Albert Cottier, plant managing director; A. Tschan, manager, Monotype Berne; Vandercook, and A. Hostettler, erector.

Movie Depicts Printing Management Careers—Scenes for a movie which promotes careers in printing management were shot at this Western Printing and Publishing Co. plant, Poughkeepsie, N. Y. The film is produced by the Education Council of the Graphic Arts Industry, Inc., in cooperation with the International Craftsmen's Assn. Shown are, left to right: Jack Dougherty, Western Printing; Harry Porter, Education Council; the cameraman, and Samuel Burt, Education Council. Advance sale price of the movie is $300.

Printing Job Wins Honorable Mention—Brochures printed by Upton Printing Co., New Orleans, won an honorable mention certificate in fine printing competition at the 1960 convention of the Southern Graphic Arts Assn. John T. Upton, right, president, Upton, presents the certificate to R. Raymond Ewart, Avondale Shipyards, for whom the brochures were printed.

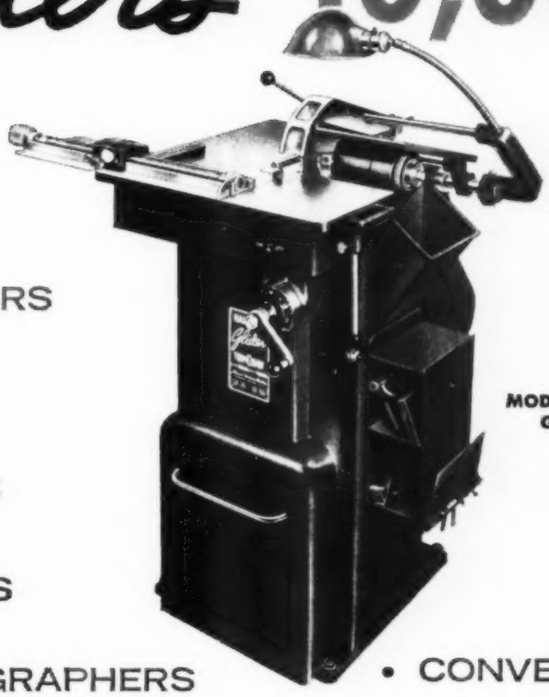


Baltimore Firm Installs Swiss Presses—Two Tirfing 48 presses have been installed by Monumental Printing Co., Inc., Baltimore. In the U.S., the Swiss made press is marketed by Tirfing Printing Machinery Co. Left to right, are: Frank Kesselring, assistant pressroom foreman, and John H. Ferguson IV, vice president, both of Monumental; Alfred Heydenreich, vice president, Tirfing, and Tore Werner, sales manager, Grafiska Maskin Aktiebolaget.

Hammond Gliders

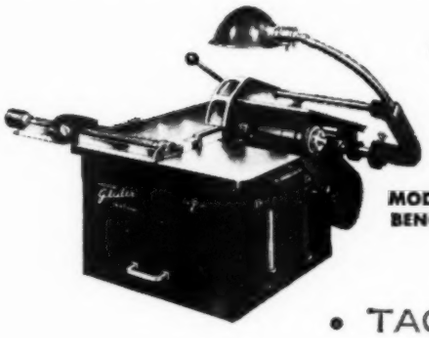
HAMMOND GLIDERS
HAVE BEEN TIME PROVEN
BY **10,000** USERS
THE LAST 26 YEARS

Branches of the graphic arts industry using Gliders for faster accurate sawing include –



MODEL G-100 GLIDER

- ELECTROTYPERS
- COMMERCIAL PRINTERS
- DAILY NEWSPAPERS
- BUSINESS FORM PRINTERS
- TYPOGRAPHERS
- CONVERTORS
- MAGAZINE PUBLISHERS
- TRADE COMPOSITORS
- TAG & LABEL PRINTERS
- WEEKLY NEWSPAPERS
- BOOK PUBLISHERS
- RUBBER STAMP HOUSES
- STEREOTYPERS
- ENVELOPE MANUFACTURERS
- ENGRAVERS



MODEL BGR-78 BENCH GLIDER

MODEL BGS-78 SLUG SAW GLIDER

Gliders give fastest sawing with ACCURACY—SAFETY—TROUBLE-FREE PERFORMANCE.

DON'T SETTLE FOR ANYTHING LESS — GET A GLIDER AND GET THE BEST.

Hammond Machinery Builders INC. / 1600 DOUGLAS AVENUE • KALAMAZOO, MICHIGAN

For More Information Circle 79 on Reader Service Card

**LOOK . . .
ALMOST
NINE FEET
AN HOUR!**

**DO YOU
HAVE
YOUR COPY OF**

*NEW
MEASURE
OF
PERFORMANCE
IN
THE
COMPOSING
ROOM*

HARRIS
INTERTYPE
CORPORATION

Open our accordion folder to its full length and you will see a photograph of an actual run-off of slugs nearly *nine feet long!*

It's proof of what an Intertype Monarch linecasting machine can do in one hour, not counting time out needed for tape changes.

Measure this output against an hour's production of your fastest machine. The difference is profit . . . yours every hour of every day when you convert to the Intertype Monarch—the new dimension in automated text setting.

Get a copy of "New Measure of Performance in the Composing Room" so you, too, can compare.

INTERTYPE COMPANY
A Division of Harris-Intertype Corporation
372 Furman Street, Brooklyn 1, New York

NEW YORK CHICAGO CLEVELAND SAN FRANCISCO
LOS ANGELES NEW ORLEANS BOSTON

In Canada: Toronto Type Foundry Company Ltd., Toronto, Montreal, Winnipeg, Vancouver, Halifax

Intertype is a registered trademark.
Set in Fotosetter Alternate Gothic and Century Expanded.

For More Information Circle 191 on Reader Service Card